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VOL. XIV NO. 1

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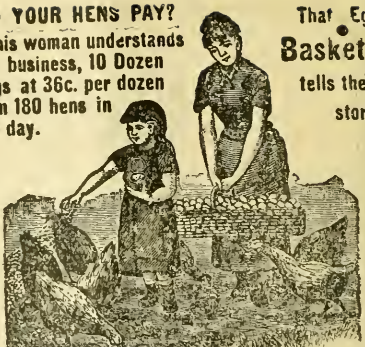

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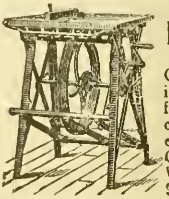

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THE AMERICAN BEE-KEEPER

Vol. XIV JANUARY, 1904 No. 1

COMB BUILDING.

An Analysis of Cause and Effect in Relation to the Construction of Drone and Worker Cells.

By W. W. McNeal.

NATURE has decreed that every colony of bees shall have a constituency of (1) a queen; (2) worker-bees; (3) drone bees. She has ordained each of a kind to a particular mission in life: the queen to populate the hive; the worker to gather honey and build the honey-comb; and the drone to beautify the young queen. To insure this order of insect life it is necessary for the bees to build comb suitable for all propagating purposes. That there are certain agencies which preclude the building of worker-comb and intensify interest in the production of drone comb, is beyond conjecture. A knowledge of those influences and the ability to avoid them, practically makes a master of bees.

The building of worker-comb signifies contentment, but drone-comb implies that there is a feeling of insecurity or one of dissatisfaction; and, therefore, it often stands a monument to the caprices of a romantic queen. The mere presence of the queen on combs under process of construction does not necessarily mean that she is in full sympathy with home interests. The coachings of instinct make the workers alert in this matter, and as soon as they anticipate the probable loss of their queen, preparations for the rearing of drones are at once begun.

A queenless colony will invariably build drone comb and nothing short of a good laying queen would ever make it think of building worker-comb.

The same teachings are to be met with in a nucleus where the queen can easily keep pace with the comb-builders. Just as long as there is contentment within the hive, the little colony will build worker-comb. But when the leaven of discontent begins to work, and they contemplate swarming, the wax-workers switch off onto drone comb, with the queen following in close pursuit.

It is a well-known fact that black bees build more worker-comb, as a rule, than Italians, because they are less given to swarming.

We have heard it said that a swarm builds drone comb for store purposes, the reason assigned being that it is more economical of time and wax to do so. But bees do not build comb simply for store purposes; that is a secondary matter with them. Drone comb will not be used in the fall of the year for honey when there is worker-comb at hand; thus showing they do not have a preference for it at any time. If the production of drone-comb were true economy, why don't the bees of a swarm practice it right from the start? At no subsequent time is the demand for store-comb so urgent, nor could that doctrine of economics be more clearly demonstrated. But, do the bees build drone-comb at that time? No. It is only when the hive has been partly filled with worker-comb that local conditions arise to divert, or, the desire to swarm again, causing a ferment among them, do they build drone-comb.

However, for the sake of science in bee-culture, we will grant that by a concentration of forces at a given point, so easily effected at time of hiving, places such a great amount of wax at the disposal of the little company of comb-builders, they feel justified in the expenditure of it for the more costly (?) worker-comb. As the work advances and the colony breaks up into groups of various sizes, some of these groups may be embarrassed by a shortage of wax. Or, that on account of the desertions in the ranks of the builders as they attain the age for foraging, it becomes necessary for them to use a shorter cut, so to speak, to keep abreast of the field-gatherers. Now, upon a superficial view, that might be taken conclusively; but please note that drone-comb is first started by those bees remote from the center of the cluster, where brood does not restrict storage room. Those little companies of workers, being too busily engaged to explore the combs of the hive, come to feel their isolation and deprivation of the companionship of the queen; then they build drone-comb. Look at it in this way: Bees will build queen cells in any part of the hive where brood, in any manner, is separated from the main brood nest. Now, if bees on old combs containing brood in all stages of development and these combs adjoining those where the queen holds forth, feel the isolation and loss of the queen to such an extent that they seek to repair her loss, why doesn't the same hold true in the other case? The fact that the queen of a swarm often seeks drone-comb and occupies it with brood when there is unoccupied worker-comb awaiting her is significant, and, unquestionably, it points back to the primitive purpose of drone-comb.

There is a two-fold purpose, nevertheless, in the laying of drone-eggs when the queen has calculations of her own. The nurse bees are clamoring for brood and were the queen to attempt to gratify their wishes by laying none but worker-eggs she would be, consequently, in no fit condition to accompany the swarm when it issued from its newly-furnished home. By laying drone-eggs she can reduce her avoirdupois while maintaining a given demand for the food secretions of the nurse bees. One drone larvae requires for its development, food sufficient to mature several worker larvae. In this manner the queen meets the exigencies of the case without any serious inconvenience to herself. When the time arrives for the departure of the swarm, there is then every necessary means for those left behind, to renew their joys in another queen mother.

How beautifully perfect are the combs built under the guidance of a home-loving queen in the bloom and vigor of youth! Her contented way sheds an influence through every part of the hive; and, no matter how pressing are the needs of store-comb, the bees do not consider it an advantage to them to build anything but worker-comb. When their wax-secreting machinery is running full blast they do not care for comb with fewer partitions in it. Their queen is willing to plod along with the use of the smaller cells, and why shouldn't they continue to make them? Their mathematicians fail to figure that there will be any gain in time by making the larger and thicker combs.

There can be only so many bees working on the knife-like edge of the comb at the same time, whether it be drone or worker-comb. The cell walls are brought up later by a different force of bees who must wait, patiently or otherwise, till the foundation of the comb has been laid by a limited few. Why should those industrious toilers further retard labor on the comb, in like manner, by framing it with fewer side walls—walls to fit those born idlers, the drones?

Evidence one more example of this kind. In the crowded brood-chamber of an established colony, having no super-combs for the storage of honey, the bees will fill an empty frame given them, with drone-comb and drone-brood though thousands of comb-builders are idle and storage room is sorely needed. Ah, there is no mistaking the motive in such action at any time. Drone-comb is the expression of a love of the assuring presence of those big gentlemen whenever a spirit of adventure pervades the ranks of the comb-builders. Natural drone-comb is probably just as expensive to make as worker-comb. The cells are necessarily deeper and the greater distance between cell-walls make it more difficult for the bees to steady themselves while working on them. Taking all this in connection with the greater amount of wax they would drop to the floor of the hive, may offset the apparent gain to the bees by the more open construction of drone-comb.

The more we come to know those things that are grievous to bees and tend to provoke them to acts of swarming; in short, when we learn how to win them from their wayward propensities, will we be able to systematize the production of worker-comb without the aid of comb foundation. I hope there are many persons among the hosts of Bee-Keeper readers who are willing to help the good work along. For, as the bees build the honey-comb, so may we move steadily onward by a concerted effort, till that grand achievement is recorded to the glory of honey-producers and the enduring good of apiculture.

Wheelersburg, Ohio, Dec. 3, 1903.

QUEEN REARING.

The Art as Practiced by a British Expert.

By John Hewitt.

DEAR MR. HILL: In all the American bee papers I see from time to time a lot of silly stuff about rearing queens. The so-called Doolittle system of making artificial cells and putting in royal food being about the favorite. All that Doolittle discovered (?) will be found in Huber's book, published over 100 years ago. Huber also showed that bees, in selecting larvae to rear into queens always began on those two days old; this being so—and I know he is right—how can any one expect to get bees to start on larvae just hatched from the egg?

There is another fact, which I soon found out, and that is, the bees quickly remove all the royal food Doolittle directs to be put in the cells, as they will anything else they have not stored; this led me to try putting in larvae without the food and I then found they developed almost every one into queens, instead of just a few. I now pared drone-comb down, cut it into strips and put a larvae in every alternate cell and these were all reared into queens, although there was not a trace of royal food or the base of a queen cell.

I did not, however, feel satisfied as if I gave just hatched larvae, they at once dried up in the cells and very few would be developed. I then adopted the plan of giving the larvae two days old, which were all soon on their way to become queens; when the cells were half-built I remove these larvae and put in others just hatched from the egg, so that they tumbled as it were into a perfect bath of royal food; these queens invariably hatched out into splendid specimens.

Always on the "mend," I now used drone larvae two days old, for the following reasons: The bees start queen cells on them just as readily as on worker larvae, and should one get missed or overlooked, it develops into a drone and not a small queen to play "old Harry" two days too soon, and when one has to depend on help, it does not do to take risks.

I soon got tired of hunting out drone comb and cutting it into strips, so I made a machine to make 50 cell cups at once; these, held at exactly the right distances in a frame are dipped into molten wax and then immediately stuck on a stick, as soon as the wax gets cold the cells are all fastened to the stick and are ready for larvae.

If all the queen rearing is done in full stocks, having the swarming fever on, no cell needs to be cut out, as the bees will protect the queens, and what is more, so long as the swarming fever is kept on, the bees will start and seal cells as fast as you give them no matter how many they may have sealed or queens already hatched and ripening.

There is one very big advantage in this, as every queen is examined before putting to a nucleus to mate and all that do not "come up to the mark" are destroyed, hence I have no second or third class queens.

If queens are reared on these lines and given to good strong nuclei to mate, I'll guarantee—if good breeding queens are used as mothers—the bees produced by those queens will never spring dwindle or suffer from winter dysentery. I make this assertion after

17 years experience, in which I have sold thousands of queens guaranteed against this complaint with never a failure.

Whatever may be said in favor of "Nature," it is the only plan I know of in which queens can be reared artificially direct from the egg, and it certainly produces better queens than when left to natural development.

Of course, there will be plenty of queen breeders who will swear by their own methods, but where is there one who will guarantee his queens to produce bees proof against spring dwindling or winter dysentery like I have been doing ever since 1889? If I could not produce such bees, how is it people send to me for all their queens, and I have yet to receive the first report of such a lot of bees?

I don't wish readers to infer that I use artificial cell cups in every instance, because I don't, for the bees will start cells of their own, which instead of removing, I remove the included larvae and put in one just hatched from the egg. Another fact some queen breeders will not swallow, is, the large number of queens I produce on my system—500 per week from one hive is nothing to wonder at, while anything under 100 leads me to suspect something is wrong and more than this, I never cut a cell out, all being hatched in the stocks they are reared in, being naturally protected and fed by the bees in their cells for two days at least.

Sheffield, England.

BEESWAX.

Something of Its Use in the Arts and Sciences of Ancient and Modern Times.

By Dickson D. Alley.

THE OTHER DAY, while looking at a beautiful piece of honeycomb and admiring the wonderful work of the bees, I began wondering if the average bee-keeper knew what uses beeswax was put to, after he had disposed of it to the dealer. The apiarist is familiar with the manner in which his wife uses it to rub on her flat-iron or to draw her thread through, when engaged in heavy sewing. While he receives part of it back in the shape of foundation.

Among the ancients it was an extensive article of commerce. They used it largely in all their religious ceremonies, embalming their dead, and as an ingredient in precious ointments and salves. The Roman used it for coating his writing tablets on which he indicted his thoughts with the stylus, an instrument the prototype of our lead pencil. Combined with other resins the ancients calked the seams of their galleys to render them watertight. The Romans bronze workers and silversmiths used beeswax extensively in their art. First making the model in beeswax and forming a mould over it of moulding sand. Then applying heat and melting out the wax, leaving the impression of the original in the mould, into which they poured the molten bronze. The Chinese also use this process in their bronze castings, it being applicable to the most complicated forms of the original model; such as the foliage of trees, etc. The whole casting being made in one piece; whereas, in modern bronze founding the original is covered with a mould which may consist of many pieces fitting together. In large castings necessitating the cutting of the model into several pieces to be cast separately and afterward brazed together in the finished product.

The beautiful vases and other objects of the silversmith's art, are all modeled in beeswax, to which has been added some fatty substance and powdered sulphur to keep it pliable. A great many of our public statues have been modeled in this material.

Langstroth says: "Wax candles were early introduced—with symbolical signification—into Christian worship, and are still so employed in the Roman Catholic church." The Episcopal church also uses wax candles to some extent. For this purpose the wax is bleached as white as snow.

Wax is used by engravers for covering copper plates with a thin coat, through which they scratch the design down to the copper; this is afterward submitted to an etching bath of weak acid which eats the exposed copper, leaving that part of the plate coated by the wax untouched.

Who has not heard of Mr. Jarley's wax works? life-size and realistic figures made famous by Mr. Dickens in one of his stories. In Mme. Taussand's celebrated wax figure show, of London, and the equally good show in the Eden Musee, New York City, may be seen in wax, all the celebrated personages of history, in realistic attitudes, and besides all these may be mentioned the innumerable show figures used by tradesmen for the display of their goods.

It is also used by electricians as an insulator; by dentists to obtain an impression of the patient's jaws; by chemists for dipping glass stoppers to bottles containing strong acids and alkalies; medicinally as an ingredient in many preparations. It is used in a photographic process for the production of carbon prints; for polishing hard-wood floors, and by decorative painters as a glaze.

As the cold weather is here and the bees are temporarily out of business, why not start a discussion as to the uses of the products of our little friends the bees?

Yonkers, N. Y., Nov. 17, 1903.

THE BEE IN THE GREEN HOUSE.

By M. F. Reeve.

THE CUCUMBER grower has no more useful ally than the honey bee, and the same industrious, unpaid laborer, will do good service among tomato and eggplant blossoms. Every New England gardener has one or more swarms of bees and a hive is carried into the forcing house soon after the cucumbers are planted so that the bees may be ready to visit the first blossom. The cucumber, like other plants of its tribe, bears two kinds of blossoms on the same vine; one sort has stamens, the other pistils. It is necessary for the pollen of the former to be carried to the latter. This work was formerly done by hand, with a camel's hair brush, until it was found that the same result could be attained more easily and cheaply through the agency of bees. The little insects are also more certain to find and fertilize all the cucumber blossoms than even an expert human operator.

Many tomato growers who carry on operations in winter under glass have found that a hive of bees in the forcing house adds to the certainty of pollenizing the blossoms. The New England growers nearly all employ bees for the purpose of fertilizing their under-glass crops. Fifty cents per pound has been a common New York quotation for winter tomatoes.

A green house man near by my place complained to me, "your bees have played the mischief with my carnations. I had a lot of plants which I had cross-fertilized with pollen for getting bigger blooms. The bees got in among them and mixed up the varieties everyhow and I got all kinds of variegated plants."

I suggested that thereafter he enclose the pollenized flowers with gauze until they went to seed, seeing that the end he wanted was to get the seeds to determine the result of his experiment. He did so and informed me that things had turned out just as he desired and that he had a carnation that would make the famous Lawson $10,000 one look like thirty cents for size and color.

The land grower who was experimenting with growing winter tomatoes in one of the green houses and had had indifferent success, borrowed a hive of bees and was enthusiastic over the results. He said the tomatoes were in greater profusion and ripened much better, and at a time when they brought more money. Incidentally the bees having the run of the green house were of service in other fertilizing work.

Rutledge, Pa.

BEE HUMBUG.

"It is passing strange what a lot of freak ideas exist about the bee, and how, like a snowball, the rolling nonsense has gathered unto itself in its progress the vaporings of every idle dreamer, of every emotional fictionist."—Arthur C. Miller, in American Bee-Keeper. Mr. Miller follows on with the startling assertion that "the bee is a thoroughly selfish animal." He says that the manifold labors of the worker are only the expression of the "parental instinct." But when did "parental instinct" come to spell selfishness? With such views A. C. Miller is likely to feel lonely.—Irish Bee Journal.

Can you send us just one new subscriber?

A MILK AND HONEY FARM.

By Rev. C. M. Herring.

SUCH A FARM is run successfully in Brunswick, Me., by Mr. Charles D. Winslow, who is a young man of broad intelligence and agressive enterprise. At the age of 19 he conceived the idea of uniting the business of milk and honey-raising. And looking forward to the possession of a farm that was destined soon to be his own, he purchased of me a hive of bees, which, up to now, has increased to 40 strong colonies.

With these and 20 cows, largely Jersey, he has stocked his farm.

CHAS. D. WINSLOW.

He thinks the best fodder he can raise for his cows is alsike clover, which also affords the best supply of nectar for his bees. These two products he brings to the city every day in his milk cart, on which is written, in large letters—"Pure Honey and Jersey Milk."

His charming white clover honey commands a quick sale at 25 cents per pound, and his rich yellow milk joined with his honey, make a commodity that pleases his customers. Also, it not only furnishes his table with attractive sweetness, but it keeps his pocket-book well lined with fives and tens. His work is brisk and growing, and he is destined to make his mark as a milk and honey man. He is yet a single gentleman, but he is popular among the ladies, and he will, ere long, make an adventure for life. If I should tie the knot, his "honey-moon," would be to me as the sun at noon. I think this example of push and enterprise should attract the attention of all young men. And especially of all farmers, who would make the most of their noble calling.

Brunswick, Me, Nov. 12, 1903.

WIRING BROOD FRAMES.

The Way it is Done by a Bee-keeper of California.

By H. M. Jameson.

FRIEND HILL: Much has been written and printed in the bee-papers about wiring frames, in fact, a lot of "wire-pulling" to accomplish little. They drive nails, etc., for tension. Nothing but hard work comes of this. Then they hatch up some jigger to hold the frame to stand the hard pull.

Most bee-keepers have plenty of room out of doors. Instead of causing the wire to kink and crawl by winding about something, unwind and straighten it out. I fasten the wire near the shop door, having the spool on a spindle. I walk out through the olive grove, now and then giving the wire a pull, walk on till the whole is run out, if so much is desired, giving it a final pull stretching it several rods if on a hot day. It will then be limp as a string. If it breaks in pulling out no harm is done.

The frame is pierced for four wires and I get the best results by crossing the center wires; this leaves practically three in the center with four at either end. The wire draws through the frame as would a string. With a little practice you can measure the amount you need for the frame when you pull through the upper holes, or the first pull, i. e., just enough to reve through the balance of the frame, having it come just long enough to engage the tack or nail to hold it. Now take a turn of wire around the fore-finger of right hand, with glove on, bracing the thumb against the frame, which you have loose. With the fingers of the left hand bear down the third wire from the top, then the second, taking up the slack with the right hand till the wires sing, and fasten as usual.

Fasten the foundation to top-bar and draw smooth. With the fore-finger nail of left hand draw the upper wire down in the center one-half inch and imbed there, keeping the sheet smooth, imbed the crossed wires by catching the lower one with thumb nail of left hand, push it up one-fourth inch and imbed there. The upper wire by being sagged will hold and not sag more, while the lower one will, if the foundation does, thereby keeping it smooth in center where it always sinks the most. There will be no occasion for getting the frame out of square in the operation. The bight of the wire will not cut through any ordinary cloth glove.

I wish you a fine turkey dinner for Thanksgiving.

Corona, Cal., Nov. 16, 1903.

A MYSTERIOUS ACT.

Peculiar Habit of Worker-bees Revealed by Obser-vstion, and Its Possible Bearing upon Current Subjects of Discussion.

By Arthur C. Miller.

"BEES do nothing invariably," quoth Mr. Hasty. Oh, go to the bee thou skeptic, and learn of her ways and be wise. In a broad sense bees do nothing invariably. Certain general laws they are, by force of their nature, compelled to follow. When man interferes they adapt themselves to the disturbance and changed conditions so far as they can. When they do some seemingly erratic thing, quite contrary to expectations we may be sure that the fault lies in our interpretation of the conditions, not in the bees. As yet we know very little of the laws of bee-life. Certain general habits we recognize, but the stimuli behind those habits are more than obscure.

In the American Bee Journal for October 1, Mr. Hasty, in commenting on my statements about bees' methods of obtaining food from each other, quotes an old legend as to the bee's manner of ripening nectar, gently protruding a minute drop on the end of the ligula and then drawing it in again." There is just enough truth in the legend to make it misleading.

After an inflow of nectar or syrup many workers will be found clustered quietly, and at first glance apparently for no purpose. A little closer scrutiny will reveal the motion of their mouths and the appearance there of a tiny drop of fluid. There it stays briefly and then is withdrawn and the mouth closed. This operation is repeated for a long time, how long I do not know, for my patience always gave out before the bee's did. I assume the operation has to do with the ripening or conversion of the nectar, but whatever it's purpose it is done entirely by the mouth, the ligula or tongue having nothing to do with it, being folded up back under the chin. A few diagrams may help to make it plain.

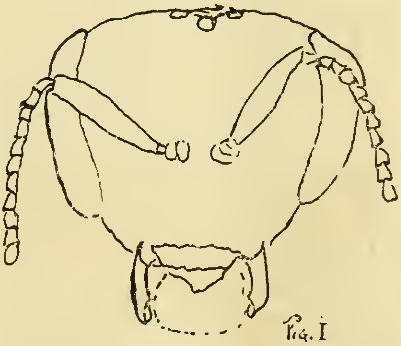


Fig. I

Fig. I is the front view of a worker's head as it appears during the operation; the dotted line N, showing where the drop of nectar (?) appears.

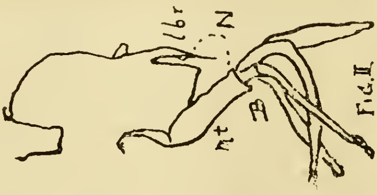


Fig. II

Fig. II is a sectional view of a worker's head; lbr is the labrum or upper lip, mt is the mentum or chin to which the tongue is attached and bends or folds back at B, but is shown extended and its parts separated. The mandibles are not shown as when the tongue is not in use it is folded up behind the chin In the same figure the dotted line N represents the liquid.

In Fig. I the mandibles are shown open, which is the usual position when the bee is at work about the hive, except when she is carrying something or using them to push with as when packing pollen or working on the comb.

Providence, R. I., Oct. 11, 1903.

LARGE HONEY CROPS.

By F. Greiner.

MR. EDITOR: Allow me a few explanatory remarks on the above subject. The final report of Mr. Johnson's large honey crop in December issue, sounds fishy and no mistake. Mr. Johnson had not ought to expect but that such a report would be looked upon with some suspicion by a large number of bee-keepers. To my knowledge no such a crop with such increase has ever been secured in our Northern States. If, one year with another, I could do half as well I should go into "bees" on a large scale with the expectation of soon being able to buy out Rockefeller or any other fellow; but unfortunately I have the reputation of securing very small yields generally, although I have reached the 100 pound mark three times in thirty years.

The season of 1902 is still vividly in my recollection; it was one of the wettest I have ever experienced. It could not have been any worse, it would seem. Clover was present in great abundance, but the bees were kept from visiting the blossoms for more than three-fourths of the time. I have never passed through a more tantalizing time with my bees than that season. Abundance of honey at the door, plenty of bees to take care of it, but no opportunity for them to gather it in. Strange as it may seem during this most unfavorable season I took from an outyard of 16 colonies over 1,800 pounds of honey, half extracted and half in comb. As I recollect, I have had other honey seasons when every condition seemed to be unfavorable. It is not unreasonable to expect that at some time or other a season might come around with all conditions favorable, when a crop of four times as much as I secured in 1902 would not be impossible.

The past buckwheat season was interrupted in the midst of its glory by a cold and wet spell which ended it too soon to make a remarkable record, yet some colonies, put in best possible shape at the beginning of the season, stored 50 pounds in sections. Seventy-five could have been easily obtained with favorable weather.

The rule, as I have observed, seems to be unfavorable weather during the honey flow. Mr. Johnson has had a season with all conditions favorable and it is my opinion, he will not live long enough to see another season as good.

Speaking of the different sources we in this part of Western New York may get honey from, I might say the following, in order to show that a very large yield, like Mr. Johnson's is possible.

There have been seasons when I have seen my bees bring in quite a little honey of excellent flavor from sugar maple. It is the earliest honey we get here. Generally the weather is unfavorable during the few days the bloom lasts. The fruit bloom comes next. In some localities in this State yields of comb honey are sometimes secured. As high a yield as 100 pounds extracted honey has been reported, although I have never even tried to have honey stored in sections from it. Raspberry bloom often gives us surplus, and if there were enough locust trees within reach of my bees locust bloom could be depended upon to somewhat swell the crop. Sumac also figures as a source of surplus honey in my locality, and my whole honey crop is often ruined by the addition of this amber honey to the white honey we are getting. White clover I have known to yield honey abundantly some three or four times within the past 30 years, but 12 or 14 miles north of me it yields very regularly, almost every year. Basswood usually yields honey when it blooms and the bloom is not destroyed by forest-tent caterpillar. Basswood and clover overlap each other, the flow commences with latter and ends with the former.

I have recorded one season in 30 when my bees continued to store honey all the way along during the usual interval between basswood and buckwheat. Buckwheat is more reliable here than is basswood, and yields well, but some years there is not enough sown within easy reach of our bees. After buckwheat, I have had a good run once in 30 years from honey dew. It is an undesirable adjunct, still it is honey and we found willing buyers for it. There are two other plants which have the name of yielding honey, but so far as I am concerned they might as well not exist—"goldenrod and sweet clover." Undoubtedly they yield honey in some sections of New York, but like catnip, the different mints, etc., they amount to nothing here.

Summing up the matter it will be seen that with all conditions favorable we might have a continuous honey flow from early spring till September 15. When this happens the average bee-keeper could, without difficulty, increase from one colony and secure 500 pounds of surplus from every good colony in the spring. Occasionally, a bee-keeper may be so favored so as to reach this maximum, but I should consider it an historical event. From year to year I have looked forward with the hope to once be favored with one of those ideal honey seasons, but so far in vain. Last season was quite favorable, as compared with the average, having secured an average yield of 45 pounds, mostly comb honey. At this rate bee-keeping pays pretty well. If bee-keepers all over our land average more than that bee-keeping would pay too well and would soon be overdone.

Naples, N. Y., Dec. 7, 1903.

THE BEST HONEY GATHERERS.

By O. M. Blanton.

ALTHOUGH it is very difficult to make a perfect test of the capabilities of the different strains of bees, as to their capacity for gathering honey, I have from many tests in regard to them satisfied myself that there is little or no difference.

I placed a Cyprian and black colony side by side, both queens of previous season, and both to all appearances equally strong. At the height of the honey flow removed the surplus combs of honey. The blacks had filled eleven combs completely full, and capped, honey, and the Cyprians ten combs with the eleventh comb filled with the exception of 30 per cent. of capped brood.

I also tested colonies of three-banded and golden Italians and Holy Lands with colonies of blacks and with about the same results.

I had them all in Langstroth hives, eleven frames in the upper stores and ten frames in lower brood-chamber. All the queens of the previous season. I also use 20-frame and one-story hives, and from one with black bees removed twelve solid combs of capped honey, the brood confined to the remaining eight frames.

It was my intention to weigh the honey separately from each hive, but being over crowded with work was unable to do so. Upon close inspection of my hives I could not see any marked difference in the qualities of the different strains. My Carniolans I have not tested enough to form a correct opinion though they indicated as good results.

The different strains showed their viciousness in the following order: The Cyprians almost intolerable; next the Holy Lands, then the Italians, with blacks and Carniolans of easy control. The Carniolans and blacks crossed on Cyprians were greatly modified. One colony of Cornio-Cyprians were quite gentle.

I see no advantage in Cyprians at honey gathering, and it is the height of folly to suffer such torture from them without any remuneration. The Cyprians whipped me out on several occasions whilst I was endeavoring to remove the surplus honey. Tobacco and even sulphur could scarcely control them when the smoke was comparatively cool. On one occasion I went through 15 colonies of blacks and one Carnio-Cyprian without a sting; and next attempted to remove the surplus honey from an imported Cyprian, and was completely driven away, and next day made the attempt again with same results.

There is no question as to the crossing of strains being of great benefit in preventing deterioration from in and in-breeding; and while we are so engaged it is well to have in view gentleness, as we gain nothing except torture in handling the vicious.

I prefer for crossing the three-banded Italians, Carniolans and blacks. If I was left to choose only one strain of bees I would be loath to give up the blacks; especially as they make the prettiest comb honey.

Greenville, Miss., Dec. 7, 1903.

ARTIFICIAL POLLEN.

By C. S. Harris.

I WAS VERY much interested in the editorial concerning artificial pollen in the November issue of the American Bee-Keeper, which was on a line with my own experience the past season.

Usually after a good flow from saw palmetto, the bees continue brood-rearing, which keeps them in good shape for the cabbage palmetto, shortly to follow; but this year all colonies curtailed their brood and many queens ceased laying.

In this particular instance, as regards full colonies, it turned out to be a piece of good luck, as cabbage palmetto was a complete failure and the bees reared for it would have been merely consumers; but during the saw palmetto flow some queens in nuclei had been badly crowded and, wanting more brood, I endeavored to get these queens to lay, but with little success, until pollen was obtained from some source.

At the time, a friend suggested that a lack of pollen might be the cause of the trouble and this seemed the more likely from the fact that the bees had stored little or no pollen from magnolia bloom when, generally, the combs were crowded with it at this time.

Unless nectar is coming in freely when magnolia is in bloom the pollen from it is apt to become a nuisance, as the bees will sometimes fill several combs in the middle of the brood nest with it and they are much slower in removing it for the queen than honey in a like position.

This locality is strong on pollen, or, always has been heretofore, and this is my first experience of a shortage. It did not occur to me to try artificial pollen, but the hint furnished by Mr. Parks' experience may prove of great value upon some similar occasion in the future.

Holly Hill, Fla., Nov. 26, 1903.

CHICAGO NORTHWESTERN CONVENTION.

Advancement in the Use of Formalin Gas in Treating Foul Brood.

(By J. E. Johnson.)

I ATTENDED the Chicago convention December 2nd and 3rd, and I don't think a more profitable or harmonious bee-keepers' convention was ever held in the United States.

On Thursday President York could hardly get the bee-keepers to stop talking bees or get them to understand that they must satisfy the inner man with something to eat. Four or five members would many times arise to speak at once. Good nature and harmony prevailed through all the convention. There was a large attendance. Among those present were Dr. C. C. Miller, W. Z. Hutchinson, E. T. Abbott, Huber Root, N. E. France, D. K. Smith, Niver of New York and Fred W. Muth, of Cincinnati, and many other well-known bee-keeping experts. Best of all everyone seemed to agree that this was to be a harmonious and profitable convention; and I want to say right here that I think all the unkind feelings aroused at Los Angeles were tied up in a bundle and sunk in Lake Michigan. Let us hope never to rise again. Let us all practice forbearance and patience with one another. We are not all built alike, and don't see alike. I believe we all want to do what is right and surely we all want the National Association to prosper. I don't expect to be able to do much good, but I do want to impress upon the minds of all that it is so very easy to do harm.

I believe the venerable Deacon is right in a certain sense about the two opposing parties, and that is this: When friends misunderstand each other and are caused to utter bitter words against each other, when the light of forgiveness and forbearance shines in upon them, they will know each other's metal and be bound in closer friendship than ever. In the good book it says that in the day of judgment those that are to be clad in white robes have come up out of great tribulation. Let our motto be kind words and kind feelings toward one another, and 5,000 members before next National convention will be the result.

The National is doing a good work. Every bee-keeper ought to belong to it. All within reach ought to belong to the Chicago and Northwestern. I live 163 miles from Chicago.

I talked with several old experienced bee-keepers who produce lots of both comb and extracted honey and they sell their honey both comb and extracted for 20 cents per pound. Just think of the help it is to talk with such men and get pointers not only on selling honey but how to produce it. I noticed in particular that these same men were at the convention last year, and if they live they will be there next year.

There were samples of both comb and extracted honey in different packages on exhibition from which we might gain many valuable pointers. Also there were sample combs of foul brood with Inspectors France, Smith and Hutchinson to kindly give us information so that we might be enabled to detect it easily. President Geo. W. York, vice-President Mrs. Stowe and Secretary Herman F. Moore were re-elected. There were quite a number of lady bee-keepers present. If you want to attend the best convention ever held, attend the next Chicago and Northwestern—every member belongs to "the push."

FORMALIN GAS FOR FOUL BROOD.

The Deacon says in December issue that he wished I had shouted sooner and louder about formalin gas. I have met so many criticisms in the past in other things that I had not the courage of my convictions, but now I am going to just ask the editor to kindly move over and give me a little more room while I shout just one more shout.

Next time I will try and cut my article short. As I have given chase to the formalin rabbit I intend tostick to his trail until I either catch him or run him into his hole for some one else to catch.

So many are on the wrong track and the longer they follow that track the farther they get from home. Many think that germs are of animal life. The foul brood germ is a plant, and it propagates by sporulating, which is a sexual act. Bacteria like the pear blight germ, is a plant, but is non-sexual. Now don't forget this: Formalin gas will not of itself kill any germ at all, no matter how strong; but when the gas and the air are combined those two elements together produce formic acid, and the formic acid is what kills the germs and spores. So many say, "Oh, your box was not tight enough, therefore you failed," when the truth of the matter was, the box was too tight. Remember that the air is just as necessary as the gas. You don't want your box too tight. Let in lots of gas and lots of air. As long as you do that you will continue to produce formic acid. When the air stops coming in, you soon stop forming the acid. When you apply formalin gas to an air-tight chamber you only produce formic acid so long as that air lasts, or until that air ceases to supply the necessary element. After that, no matter how strong your gas is you get no acid. Hence it is not effective. Remember also that formic acid will hurt neither bees nor brood. Bee-sting poison is formic acid, the same identical stuff that is produced by formalin gas and air.

I made the statement some time ago that I hoped to see the time when this gas could be so applied that it would kill every germ and spore in a hive full of bees and not cause the bees to miss a meal; but in bee-journals I did not venture to go further, as I knew I was treading on dangerous ground, but now as others have had their say; tried and failed, perhaps the brick bats won't fly so thick around my head if I venture to offer a little help for your own good. Next month, if I live, I will try to tell you how you can, without any machinery by only slight cost, apply formalin gas into your hive full of bees no matter how rotten with foul brood and kill every germ and spore and not kill your bees. That is a pretty broad statement, but I think I can prove it. But don't try it on a large scale till you know just how.

Williamsfield, Ills. Nov. 5, 1903.

When writing to advertisers mention The American Bee-Keeper.

American Bee-Keeper

THE DEACON'S "PURPS" AND OLD BRASH.

Dear Brother Hill: For the land's sakes, why not let Mr. Johnson tell a big yarn if he wants to—it may be true, which is more than it is safe to gamble on with the tales of some of the boys. I be powerful sorry for Johnson; think of the thousands of colonies that'll be put in his bailiwick next season.

Suthin' sort of graspin' in that Small chap of New Zealand, when he can't let pass a chance to talk. Must be related to some of we uns. Nice mess he makes of figgers; they'll twist some of the boys. Put it in good U. S. values next time—but perhaps you couldn't. The humility of his Humble bees reminds one of that of Uriah Heap. They must be kin to Florida dragon flies. Is that New Zealand Flora he is to write about, his wife or some other fellow's?

Whew!! How hot McNeal is a gettin' under the collar. If you don't believe in deep frames, say it softly. Hobby he calls it. Not much—its a nightmare. "Bees build downwards far more readily than sidewise," which means that give the little cusses a chance and they will build a comb one cell wide and as long as Mac's theories. Ah well, he's young yet; he'll learn bye and bye. He's made of the right stuff and will come out all right.

Nary a bit of the "stand pat" about Pat—always a trottin' and 'tis back to Florida this time.

"Bee-Keepers of Gotham." None of it in mine, thank you. I perfer to be not quite so near Heaven. S'posin' a feller should forget and dodge backwards when a mad bee got after him. He'd start for the nether regions sort of suddint.

Jimmy's did it! One piece sections not wuth a continental cuss—and yet millions of them in use. But Jeems is right—as usual. Doubt it? Wait and see.

'Twixt you and Burnett and Poppleton raw extracted honey is getting a black eye. Doubtless you will get disloved, but never mind a little thing like that, so long as you are right.

I must cut my letter short, as I'm a little bit busy, got to mail off some queens, kill a couple of chickens and dress 'em, fix some gimcracks for Mary, clean my gun, repair my wagon and break a new dog. Guess I'll attend to the dog fust; the other things can wait till afternoon. This new pup of mine will be nigh as good os old Brash, and either on 'em has more sense than some humans. Why don't you print that picture of my dogs? I believe it would please some of the boys and might bring out a lot of dog stories which you could run in when bee-news is scarce.

All things are fish that come to the net—of some folks, anyhow.

Yours as ever,
John Hardscrabble.

HAMILTON COUNTY (OHIO) BEE-KEEPERS' ASSOCIATION.

By Wm. T. Gilliland.

THE ANNUAL MEETING of the Hamilton County Bee-Keepers' Association took place Monday evening, September 14th, at the Grand Hotel, Cincinnati.

The secretary, Mr. W. J. Gilliland, read the minutes of the meeting held September 1902, when the association was organized. The by-laws were next read, and together with the minutes, were approved as read.

Upon roll-call of officers and members, it was learned that 47 members comprised the association.

The secretary was then called upon to read the minutes of the various meetings, beginning from the first meeting, last September, up to the present time. This proved very interesting to all present, for in the mind's eye, one could see the gradual growth of the association, like unto a rose bud, about to cast its splendor upon the light of day, unfurls its tiny velvety petals, and in due time becomes radiant before the world. Kind readers, our association has just begun to unfurl its petals, of progress, but in a short time we will stand forth as an association of more than minor importance.

Quite a treat was now in store for us, and 'twas the secretary's report of the past year. Mr. Gilliland, who is an able bee-keeper, speaks of the association as having been successful in the past year. When the association was organized, 29 members were recorded and in the course of twelve months 18 new members were added, and we congratulate ourselves on our auspiciousness, for it is obvious we did not strive in vain.

The question of foul brood prevailed throughout our monthly meetings. The formalin gas treatment, was brought to the foreground, and discussed pro and con time and again. A number of bee-keepers were enthusiastic to have this treatment adopted by the society, and lost no time in putting its merits to a test, by fumigating the infected combs. The result, in every instance, was a complete failure.

The association thereupon adopted the McEvoy treatment, which is recognized and acknowledged, in America, Canada, and Europe as the most successful remedy known, at the present time, for the permanent cure of foul brood.

Cincinnati, being centrally located, the society is making an effort to bring the National Association of Bee-Keepers to Cincinnati in 1904. This should receive no little consideration, for without a doubt, should the association be successful in its efforts, it will prove beneficial both to commercial and business interests of the "Queen City of the West."

The editor of the American Bee-Keeper, a most valuable and reliable journal, has very kindly placed the columns and the influence of his paper at the disposal of this society. This favor conferred upon us by the American Bee-Keeper is fully appreciated by all interested in apiculture in this vicinity.

Having finally disposed of the foul brood question, it is now the duty and should be the ardent wish of every bee-keeper in Hamilton county and vicinity to become energetic in placing on the statute books of the State of Ohio, suitable laws which will protect the honey bee, as well as the various interests connected therewith. With this suggestion, the secretary's report was brought to a close and was accepted as read.

Those present at the annual meeting were afforded an excellent opportunity to examine specimens of foul brood, a fine grade of honey, and an active frame of working bees in an observation hive.

The treasurer's report was read and accepted to be spread upon the minutes.

After the collection of the annual dues, the election of officers for the ensuing year took place and resulted as follows:

President—Mr. Henry Shaffer.

Vice-President—Mr. John C. Frohliger.

Secretary—Mr. Wm. J. Gilliland.
Treasurer—Mr. C. H. W. Weber.

It was then moved that an amendment be made to the constitution, viz.: that twelve members serve on the executive committee instead of six, thereby promoting a wider scope for enthusiasm and increased interest among the members.

The following members were chosen to serve during the ensuing year:

Fred W. Muth, R. L. Curry, A. E. Painter, Chas. Kuck, E. P. Rogers, E. H. Chidlaw, Wm. McClennan, W. R. Gould, G. Greene, E. H. Vaupel, Miss Carrie Boehme, Mrs. J. C. Frohliger.

Mr. A. E. Painter, an able lawyer and bee-keeper, favored the assembly with an eloquent address pertaining to the active interest which should be manifested among the bee-keeping fraternity, to interest the State Legislature in procuring a foul brood law, which would be an inexpressible advantage to the association, and bee-keepers in general. Mr. Painter deems it advisable to appoint a special committee to go before the Legislature at Columbus, but before doing so, however, he is of the opinion that it would be prudent to send a circular letter to each member of the Legislative body, in order that they may have time for consideration and argument. This method would undoubtedly prove more effective to the interest and energy displayed by the committee.

A few states have gained their point, and are now resting easy under the protection of a foul brood law. A commissioner is appointed to notify all bee-keepers, whose apiaries are infected with the malady, to destroy all such colonies, or, if possible, remedy the defect. This commissioner is paid out of the county's funds. Illinois, for instance, is allowed $1,000.00 annually for this purpose.

If some of the states have been successful, why can not we, in Ohio, who have so many broad-minded, brainy men in our midst of practical bee-keepers, why cannot we dwell under a like protection and advantage, which might correctly be termed a necessity? There has been but one cause heretofore, and that cause, the lack of interest. 'Tis true, we are all interested in a way, but we must show active interest, which, without a doubt, during the coming year will wend its way, and waft its breezes among the bee-keeping fraternity over our entire State.

Short, but none the less interesting, addresses, pertaining to the protection of the honey bee, were ably delivered by Messrs. E. H. Vaupel, Wm. McClennan, and Fred. W. Muth.

A motion was made and seconded that the members of the executive committee should constitute the committee to bring before the State Legislature this question of foul brood law, to be energetic and tireless in their efforts to render same effective and successful, for in this way only can our ambition be gratified.

Mr. W. J. Gilliland suggested that a census be taken of the bee-keepers in the State of Ohio, as well as the number of hives each bee-keeper possesses.

Mr. Fred W. Muth again called the attention of the assembly to put forth all possible efforts in securing the National Association of Bee-Keepers in 1904. It was moved and seconded that the executive staff take up the matter immediately.

A motion was made and seconded to express our gratitude to the Grand Hotel for their much appreciated kindness in granting us the privilege to hold our meetings in their spacious and comfortable apartments.

A word in behalf of the Association in general. We are proud of our association, and we have the right to feel so. When our little body of bee-keepers nestled in a group, to form an organization, many predicted anything but success, and were firm in their belief. Our little assembly, however, was not to be daunted. They knew that they were entwined by the circle of success, and were firm in their determination not to step behind the bounds of this brilliant circle. Their progress in so short a space of time, is indeed greater than they themselvs anticipated. And now, since the American Bee-Keeper has so kindly volunteered to be our guide and friend, we can do naught but win. Unity and harmony for the glory of the Hamilton County Bee-Keepers' Association.

Wm. J. Gilliland, Sec'y.

Silverton, Ohio.

THE Bee-Keeping World

GERMANY.

By. F. Greiner, Naples, N. Y.

It is a well-known fact that the honey-bee is endowed with two sets of eyes. Two large eyes at the sides, readily distinguishable, and the three eyes in the forehead, which are not so conspicuous. To find out something about the functions of the two sets of eyes Dr. Buttel, in the presence of two other well-known men, made the following experiments. First, he covered the three eyes in the forehead of a bee with black paint. The bee was not inconvenienced by this, but flew to the window. But when the large eyes were covered only, the bee so treated showed no inclination to follow the light. Dr. Buttel says this experiment does not prove that the three small eyes do not serve some purpose. He surmises they do at very close range, perhaps within a few centimeters of objects to be examined.—Centralblatt.

Prof. Bachmetjew has lately discovered slight differences between normal and abnormal drones. (The scientific terms used by the Professor have no meaning to the average bee-keeper and I abstain from using them.)

Arndt makes the assertion in Preuss. Bztg. that it is not always owing to failure of queen when a colony is not breeding up properly, but that very often lack of nurse-bees and proper food are the principal causes.

It is advised in "Neue Bztg." to use only rain-water in rendering or clarifying beeswax. Well, or spring water is said to often contain iron, especially where there is red clay soil or subsoil. The iron discolors the wax, no matter how careful one is in conducting the work.

According to Neuman, Sec. of Centralverein, Germany is still far from having a foul brood law. He says, without the bee-keepers co-operate with the government, furnishing materials for experiments, such as queens from badly diseased colonies, diseased brood, honey from foul-broody hives etc., also freely report and give their experience with the disease, there is no telling when a law will be made and come in force.

Freudenstein resurrects the claim in Neue Bztg. that bees need no pollen for safe wintering, and that sugar is entirely sufficient. He also claims that nectar is nothing but pure sugar-water, and that bees change the one as well as the other into honey. Practically he advocates what Lizzie Cotton did about 30 years ago, viz.: That bee-keeping can be made very profitable by sugar-feeding. American red clover queens are also a hobby of Freudenstein; he is keeping them for sale. The leading bee-keepers of Germany are in the opposition, perhaps rightly so.

Dzierzon is opposed as much as ever to the Gertsung hive and all others accessible from the top. It seems he has never operated such hives, still he condemns them in the strongest terms, and says they will be the ruination of bee-keeping.

Dickel has recently found a second in Dr. Albrecht Bethe, of Strassburg University.—BienenVater.

TURKEY.

The followers of Mohammed have singular customs as to bee-keeping. It is a great sin to buy or sell bees. They may be given away and one may accept a gift in return. Decoy hives are placed about in bushes and trees to catch absconding swarms; said hives are rubbed over with certain herbs, the names of which are kept secret.

Allah causes the swarms to take possession of such hives and they may be taken to the yard of the owner of the hives as soon as they are populated with bees. Clean hives is one of the essentials in keeping an apiary. In the absence of the owner only a good upright man must represent him, not a woman, for she would cause the ruination of the whole enterprise. When bees are owned in partnership these partners must live in perfect harmony. The least discord among them would cause a worm to take possession of the hive and after a while one would find instead of combs only webs therein. It is believed that a large part of the occupants of the hive sleep outside on flowers and trees. When one wishes to move a hive it should be done Thursday evening, for this is said to be the only time when all the bees are found at home. Sometimes and by special order of the Almighty all bees gather in their hives Friday evening.—(Rhein Bztg.)

AUSTRIA.

In the questions and answers department of Bienen-Vater it is asserted that the cappings may be removed from combs to be extracted by means of the uncapping-fork without any honey adhering to the cappings.

BRITISH HONDURAS.

Stann Creek, British Honduras,
Oct. 20, 1903.

Editor American Bee-Keeper: In February, 1902, I started with four colonies, and today I have 84 strong colonies, and roughly I can say I have drawn 25 to 30 kerosene tins full of honey. The locality is fair, but being in the town its hardly fair to say the best has been done.

The bees gather honey all year round from cocoanut and other local plants. No trouble to feed the bees, although to some extent I experienced some dwindling last November and December which I attribute mostly to the want of experience in the handling of the bees. Most of my hives are "dovetail" from W. T. Falconer Manufacturing Co., and they work well, or rather, they suit this climate and the bees work well in them. Next year I hope to do well with honey and wax, although I regret to say the market is not very good locally, but a bee-keepers' society has been organized in Belize of which I am a member and through which in August last I shipped 11 kerosene tins of honey to Germany to Mr. Oswald who kindly offered to be our agent there. Before shipping he assured us of 30, ($7.50) net per cwt., but we have not yet received a return of the shipment.

As I am an employee of the government I am afraid I will be overstocked with bees next year, but I mean to limit myself to 100 colonies.

Dear Brother Hill: Can you tell me through the medium of your columns why it is my honey ferments? I noticed it badly on my first extracting. On inquiry I was told that the honey was not ripe, and since I never extract any honey until the combs are three-fourths sealed, but there is slight fermentation.

I like bee-keeping, and will always feel thankful for your kind suggestions tending to help beginners. Hoping I will not weary you with my long epistles, and with kind regards, I remain,

Very respectfully and fraternally yours
G. A. Nunez.

Fermentation may result from extracting "green" honey, or from exposure to a humid atmosphere after extracting. It may also be an inherent quality characteristic of its kind. In the latter case, we would suggest a generous application of artificial heat before canning, or in the open can, then sealing air-tight. This fermenting propensity is a quality peculiar to nectar secreted by some members of the palm family. We shall be pleased to learn something of the future experiences of our correspondent in handling such honey.—Editor.

PENNSYLVANIA STATE BEE-KEEPERS' ASSOCIATION.

All bee-keepers in the State of Pennsylvania interested in forming a thorough State organization are requested to correspond with the undersigned.

E. L. Pratt, Swathmore, Pa.

THE AMERICAN BEE-KEEPER

PUBLISHED MONTHLY
THE W. T. FALCONER MANFG. Co.,
PROPRIETORS.
H. E. HILL, - EDITOR,
FORT PIERCE, FLA.

Terms.

Fifty cents a year in advance; 2 copies 85 cents; 3 copies $1.20; all to be sent to one postoffice.

Postage prepaid in the United States and Canada; 10 cents extra to all countries in the postal union, and 20 cents extra to all other countries.

Advertising Rates.

Fifteen cents per line, 9 words; $2.00 per inch. Five per cent. discount for two isertions; seven per cent. for three insertions; twenty per cent. for twelve insertions.

Advertisements must be received on or before the 15th of each month to insure insertion the month following.

Matters relating to business may be addressed to

THE AMERICAN BEE-KEEPER,
Fort Pierce, Fla., or Jamestown, N. Y.

Articles for publication or letters exclusively for the editorial department should be addressed to the Florida office.

Subscribers receiving their paper in blue wrapper will know that their subscription expires with this number. We hope that you will not delay favoring us with a renewal.

A red wrapper on your paper indicates that you owe for your subscription. Please give the matter your early attention.

Editorial

Our Correspondents Department this month contains two very interesting reports—those of Dr. Blanton and of Mr. Thos. Worthington. They are interesting from the fact that two-thirds of Mr. Worthington's bees are blacks, and Dr. Blanton's becomes of special interest in connection with his excellent article on "The Best Honey Gatherers" presented also in this issue of The Bee-Keeper. From many sources we get information corroborating our long-established idea that the blacks "are not to be sneezed at." This fact we believe to be especially true where we are engaged in the production of comb honey.

Mr. F. Danzenbaker, the apiarian inventor of Washington, D. C., spent a few hours at The Bee-Keeper office recently. Mr. Danzenbaker is circulating among bee-keepers now with a new smoker of his own invention, for which many excellent qualities are claimed.

"Pacific States Bee Journal," is the name of a new 16-page monthly published at Tulare, Calif., with P. F. Adelsbach at the editorial helm. The initial number presents a quantity of good reading, and the editor greets his readers with: "We are here. How do you like the 'holler' of the infant?" Should our esteemed contemporary fail to achieve great success in the realm of apicultural journalism, it will certainly not be because of any stilted dignity upon its own part. We wish it success.

Burr Stacey Mention, in Pacific States Bee Journal, says, "unsealed honey contains four to five per cent. more water than sealed honey." We know nothing as to how this definite information was obtained, but we incline strongly to the belief that the statement is misleading in the extreme, even though a single test may have demonstrated its accuracy. The writer has many times extracted honey unsealed that was so thick as to render the operation extremely difficult. On the other hand, he is quite familiar with varieties of honey which after uncapping could nearly all be thrown from the comb while held in the hands. Indeed, such honey sometimes ferments after sealing, bursts the cappings and oozes from the combs while yet in the hives. It is, therefore, apparent that the statement above quoted should, at least, be supplemented with a qualifying clause.

Leo F. Hanegan, of Glenwood, Wis., we learn, has sold his apiarian equipment to Mr. J. Gobeli, of Boyceville, who will take up his residence at Glenwood at an early date. Mr. Hanegan's bee-keeping experience has been a decided success, and he still pins his faith to the honey bee as a source of livelihood; though it is yet uncertain as to where his next venture will be launched. Both Messrs. Hanegan and Gobeli are Bee-Keeper subscribers, and our well-wishes are with them.

It is said in the Pacific States Bee Journal that John Walker, near Tulare, Calif., has three hives of bees which produced about $60.00 worth of honey last season. The average "dollar's worth" per colony, where but a very few colonies are kept, frequently exceeds the record of the expert specialist, for the reason that a special price may be obtained for such small lots in the local market, whereas the extensive producer is obliged to seek the usual channels of trade, and to accept the "market prices" for his goods. There is almost always an outlet for a very limited quantity of comb honey in the home market, at prices considerably above market quotations. At 20 cents a pound, there is nothing very remarkable about this record—an average of 100 pounds per colony.

BROOD FRAMES.

In the American Bee Journal the question is asked: "If for some reason you were to start in anew to keep bees, and were obliged to get an entirely new outfit, what would be the dimensions of the brood frame?"

The query is answered by 27 practical apiarists. Fifteen substantially favor the Langstroth. Five would adopt a shallower frame and six of the number prefer one of greater depth. One "counsellor" fails to understand the question. Mrs. L. Harrison, one of the answerers, makes response thus: "The Langstroth frame. It is the only one I've ever had experience with, and the inventor made no mistakes." While Mr. Langstroth, by reason of the great service rendered the bee-keeping fraternity, through his investigations and invention, has well earned the esteem everywhere bestowed upon his name, it should be borne in mind that, after all, he was but human, and it is altogether improbable that he succeeded in treading the pathway of terrestrial life for over four score years without having committed any "mistakes."

NEW APIARIAN INVENTION.

In order that American Bee-Keeper readers may be kept well informed in regard to every detail of apiarian progress, we begin this month a new department in which will be announced every new invention pertaining to bees patented in the United States and England.

As we earnestly desire that the Bee-Keeper shall be complete in every way, we shall be pleased to consider suggestions from our readers in regard to other features not already embraced and which may be thought to be of value to bee-keepers.

DON'T BURDEN YOUR BRAIN.

The Bee-Keeper has upon its exchange list 15 to 20 apiarian journals, many general agricultural periodicals, and one hybrid affair which purports to embrace both qualities. In its December issue it pays the following magnificent tribute to specialized bee journalism and the intelligence of "farmers who keep but a few colonies of bees:"

"Farmers who keep but a few colonies of bees need not bother themselves about much that is discussed in bee journals. A large amount of what is found there has no excuse for being there, unless it be on the plea that the professional writers must have something to fill up space. Such subjects as "Mating in Confinement," "Formalin Gas for Foul Brood," "Do the Bees Kill the Drones or do They Die of Starvation?" may be passed over without much injury, by the farmer. Neither is it worth the farmer's while to spend much time reading about honey exchanges or any kind of commercial organizations for the sale of his honey or wax. What he needs more than anything else is to know how to secure a good crop, and then to be told where he can find a market at a living price, and what, under the law of supply and demand, his honey is really worth."

Our esteemed contemporary evidently deems columns and pages of personal, petty wranglings of more interest and value to the "farmers who keep but a few colonies of bees," than a knowledge of methods whereby foul brood may be eradicated, or the mating of queens controlled. He should know, it seems, "how to secure a good honey crop, and then to be told where he can find a market at a living price." We presume then, that, having been "told," the said "farmer" should forthwith proceed to sell where he is "told." What a calamity it would be, indeed, if the farmer bee-keeper should, perchance, have wasted sufficient time during the winter evenings to have acquired a fair knowledge of the present status of the whole world's apiarian conditions; and possibly may have taken a slight hand at the work of shaping these conditions more to his liking than they would otherwise have been. And then, what if he were to have the audacity to exercise to some extent his own mental faculty in regard to the disposition of his own product. It would be bad, too, if he should persist in reading the bee journals to the extent that he should learn that good stock have a tendency to increase the honey yields, and that the development of good stock depended largely upon his ability to control mating. He might find out, too, that commercial organization is to be the parent of "living prices," as well as to largely govern the "demand," and distribute the "supply;" and, therefore, that his personal interests are directly influenced by any movement which sets in motion the wheels of "commercial organization."

It is the honest opinion of The American Bee-Keeper that "farmers who keep but a few colonies of bees" are not liable to injure themselves either mentally or financially, by the acquisition of too much knowledge relative to even those "few colonies," and their management. If any reader of the bee journals finds himself menaced in such manner, if he will forward to us a self-addressed postal card, we think we are qualified to point him to one publication which may be freely perused without bordering upon the danger line.

EUCALYPTUS ROBUSTA.

We have to thank Mr. H. M. Jameson, Corona, Calif., for a generous package of seed of this nectar-yielding tree, and shall endeavor to test its adaptability to this section of the South. Mr. Jameson states that E. Robusta is rich in honey and remains in bloom two or three months. He has several hundred of these trees, but owing to the fact that he has about as many colonies of bees as trees, does not, of course, get any eucalypt honey. Robusta, Mr. Jameson says, blooms in two or three years from the seed, and thrives best in moist land; though it does exceedingly well in some very dry locations in Southern California.

Any of our readers who are interested in the cultivation of the eucalypt may secure a splendid work upon the subject by addressing the Bureau of Forestry, Department of Agriculture, Washington, D. C., and asking for Bulletin No. 35, entitled "Eucalypts Cultivated in the United States."

"EXTRACTED" HONEY.

The following paragraph is from a letter recently received from a well-known Northern apiarist:

"Recently in looking over a book of honey labels I was forcibly struck with the word 'extracted.' It looked out of place, and I believe should be left off all labels. 'Comb honey' does not have to be labeled such, and why should extracted honey in glass have doubt thrown on it by hitching on the word 'extracted?' It adds nothing, and very often arouses suspicion. Honey in cans is presupposed to be out of the comb. Help kick that word out of everything except the bee papers and market quotations."

There is no doubt that good, honest honey has been placed under the ban of suspicion as a result of the ambiguity of the word "extracted" as displayed upon retail packages. Upon casual notice the prospective buyer seems to acquire the idea that it is an "extract of honey," and not "real bees' honey." It becomes a question, however, whether it would be the part of wisdom for an infant industry to relinquish so good and specific a word upon the ground that it had failed to become thoroughly understood by the public. While it may be a fact that "honey in cans is presupposed to be out of the comb," according to some of our Texas brethren no insignificant quantity of honey in the comb is now marketed in cans, and a wonderful degree of popularity is anticipated for this "bulk honey" in cans.

Under existing conditions, we think the word "extracted" should not constitute a part of the leading line of a display label. "Pure Honey," or "Absolutely Pure Honey," should be given the greater prominence, and some brief explanation accompany the "extracted" part thereof. In this connection we would state that the Southern Drug Journal now uses the word "extracted" in its list of prices, instead of "strained," honey, as formerly. This is a result of our recent response to the Journal's request for information as to the difference in strained and extracted honey. The following clipping is from the December number:

"IS HONEY STRAINED OR EXTRACTED?"

"In reply to this question propounded in the Journal for October, page 147, the American Bee-Keeper for November says, in effect, "Both." The mossbacks and fogies in the business strain their honey, but the up-to-date apiculturist extracts his in a centrifugal machine which does not destroy the comb (which may be used over and over again), and does not crush cocoons, pollen, dead bees and other foreign matter in such a way as to deteriorate the finished product.

"Mrs. Sarah A. Smith, of Grant, Fla., writes us as follows:

" 'I see by the American Bee-Keeper for this month, that you can not see the difference between strained and extracted honey. I am sure of the two were placed before you, you would soon see. The old idea that honey made people sick, was caused by eating this strained honey with pollen and bee larvae and other things which should not be there. A dentist extracts teeth and we pull out the honey with the help of an extractor, from the combs.'

" 'Strained honey' in our price list started the discussion. We have made the change."

Thus it will be seen how much good may be accomplished by a slight effort along educational lines. But some effort is necessary. The public is willing to learn, if a teacher be provided. We see no reason why everyone may not become quite as familiar with and understand as fully the significance of "Extracted Honey" as they now do, "Boston Baked Beans." However, this journal has been accused of believing that bee-keepers know better than anyone else what they want, and if they want the word "extracted," in connection with market packages, relegated to the background, or entirely expunged, let's hear from the bee-keepers. We are with them always for that which gives promise of advancing fraternal interests.

BEEDOM AT HOME AND ABROAD.

In its issue for October El Colmenero Espanol (The Spanish Bee-Keeper), summarizes "The General State of Apiculture," briefly reviewing the situation in the United States, Chili, Cuba, Santo Domingo, Argentine Republic, Uruguay, Mexico, Germany, Austria, Russia, Belgium, Switzerland, England, France and Spain.

Such a compendium of apiarian information, if reliable, would be of the greatest interest, and we doubt not that, for the greater part, this compilation is quite so. However, after paying a very high compliment to American bee-keepers, and to the American people, our esteemed contemporary gives some statistical information relative to the apiarian situation in the United States which is, obviously, based upon rumor rather than actual facts, wherein it is stated that Mr. A. I. Root employes 700 workmen, and that Capt. Hetherington's 7,000 colonies of bees yield annually from fifty to sixty thousand dollars worth of honey.

Germany is credited with having two million colonies in movable-comb hives, and given first place among European countries, in apiarian importance. The annual production of honey is given as 20,000 tons, which is of fine quality and very white. France, Belgium, Switzerland, Austria and England all come in for very flattering notices, apiculturally.

Altogether, the epitome is a most interesting one, and bears evidence of commendable enterprise upon the part of the Colmenera.

OUR
CORRESPONDENTS

Leota, Miss., Nov. 8, 1903.

Dear Sir:

I begun last spring with 85 colonies of bees, five weak and 80 strong. I increased to 146 colonies. I bought 125 pounds medium brood foundation and used the full sheets. I bought 20 queens—Italians and Carniolans. They are beautiful bees but do not surpass the hybrids as honey gatherers or breeders. My honey record is phenomenal. A hybrid colony gathered 74 pounds extracted in 17 days. My 85 colonies (spring count) gathered 24,000 pounds extracted honey and gave me 253 pounds of wax. I have shipped 22,000 pounds of honey and 253 pounds of wax. I have on hand 2,000 pounds of honey.

Thes. Worthington.

P. S.—Have kept an accurate account of everything in my apiary, and can give any further data you may need. T. W.

Naples, N. Y., Nov. 5, 1903.

Dear Mr. Hill: My honey crop is about disposed of. We had no real fancy honey; received 13c. net for white, 10c. for dark. I had over 6,000 pounds of comb, and about 1,500 extracted.

Freidemann Greiner.

Greenville, Miss., Dec. 7, 1903.

Editor Bee-Keeper:

I commenced the season of 1903 with 190 colonies; increased to 246. Extracted 16,200 pounds honey. Removed 400 pounds comb, and wax 180 pounds.

April, May, June and July were noted for their remarkable honey flow, and until the 10th of August when heavy rains set in, followed in September with excessive warm weather and drought until the 20th, from thence until the close of October a large honey flow from goldenrod, boneset and smart-weed enabled the bees to store abundant honey for winter.

O. M. Blanton.

AN AMATEUR'S QUESTIONS.

Olean, N. Y., Dec. 11, '03.

Editor American Bee-Keeper:

Dear Sir: As an amateur in the bee business I find myself confronted with a problem that I am unable to solve. In stating my case, and to make it plain, it will be necessary to make a few quotations, not in view of criticism, but, on the other hand, in view of gaining knowledge. I will begin my tale of woe by saying that I am contemplating the raising of a few queens the coming season, using the Alley queen nursery-cage plan. Note—"The Honey Bee," pages 272-273—"The cages are covered with wire cloth on each side and inserted in a frame, etc., etc." "The frame is inserted in a strong colony, not necessarily queenless since these young queens are caged," etc., etc. I had my plans laid as I thought very nicely upon these lines, and while searching for further knowledge I stumbled onto the following. Note—35, American Bee-Keeper, under heading "Introducing Virgin Queens." "The virgin to be introduced is caged with the reigning queen over hatching brood, honey, etc. Mr. A. says the virgin will kill her old rival invariably."

In the first instance the queen is hatched in the cage. In the 2nd, the queen is hatched before caging, and in neither instance have we passed the virgin point.

Question No. 1. I do not want the reigning queen of a colony killed. Note —"The Honey Bee," page 265, paragraph 518. "It is very important to have the queen well in or near the brood or the bees might neglect it."

Question No. 2. Is it necessary that bees must have immediate access to the cells after they are sealed (or in other words 8 or 9 days old) up to within a day or so of the hatching point if the proper amount of heat can be procured otherwise.

Question No. 3. Do the bees perform any functions relative to development during the above stated period by having immediate access that would not be attained if the cell was in a cage and the hive up to the proper temperature?

Will some one more clearly define these points? To the experienced bee-keeper they will, no doubt, be wholly rudimental, but to me at present seem a hard lesson.

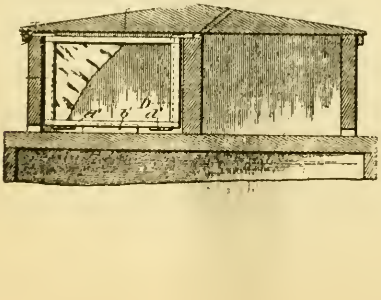
Very respectfully yours,
John J. Grant.

Our correspondent's perplexity is, doubtless, the result of having confused two different problems, namely: queen-rearing and the introduction of virgin queens. These are entirely separate matters, and need not, of necessity, have any connection. The item quoted from our February issue, 1903, has reference simply to a method for the supersedure of failing queens, while the other quotation has to do with the matter of developing, or rearing the queen. It is not necessary that the bees have immediate access to the queen cells after having been capped, providing, as suggested, that a proper temperature is maintained. In reply to question No. 3, we should say, none whatever. Though suggestions upon this point are not solicited by our correspondent, in view of his inexperience, and the supposition that he desires to rear but a few queens for his own use, we feel constrained to suggest that it would be better to dispense entirely with such things as nursery cages, etc., and simply insert ripe cells in queenless colonies or nuclei prepared for their reception.—Editor.

RECENT APIARIAN PATENTS.

741,764. Comb-frame for Bee Hives. James W. Brown, Los Angeles, Cal. Filed May 7, 1903. Serial No. 156,104. (No model.)

Claim.—1. A reversible bee-comb frame, comprising a frame and wire attached to the ends thereof, having their upper ends bent outward to form hangers, and their lower ends bent inward to form supporters, said wires being rotable so that when the frame is reversed the wires can be turned and the hangers become supporters and the supporters become hangers, substantially as described.



2. In combination with the frame. of the suspending devices extending through the sides thereof, and having their ends bent in opposite directions, so as to form frame-hangers at top, and frame-supporters at the bottom, substantially as described.

3. The herein described reversible bee-comb frame, comprising a rectangular frame, and wires extending through the frame at each end thereof, said wires having their projecting ends above and below the frame, respectively bent at right angles in opposite directions, the upper bend projecting beyond the sides of frame to form frame-hangers, and the lower bends projecting beneath the frame to support the weight thereof, said wires being rotable so that the position of the bends may be reversed, and the frame suspended either side up, substantially as described.

NEW YORK STATE INSTITUTES.

Romulus, N. Y., Dec. 14, 1903.

Editor American Bee-Keeper.

Mr. N. E. France, of Platteville, Wis., General Manager of the National Bee-Keepers' Association, has been secured by the Bureau of Farmers' Institutes to speak at a series of Bee-Keeper Institutes in connection with the local B.-K. Societies as follows:

Canandaigua, January, 6-7.
Romulus, January 8.
Cortland, January 9.
Auburn, January 11.
Oswego, January 12.
Amsterdam, January 13.
Syracuse, January 14-15.

The meeting on the 15th will be that of the N. Y. S. Asso. of B.-K. Societies.

C. B. Howard, Sec.

HONEY AND BEESWAX MARKET.

WASHINGTON GRADING RULES

Fancy: All sections to be well filled, combs straight, of even thickness and firmly attached to all four sides; both wood and comb unsoiled by travel stain or otherwise; all the cells sealed except the row of cells next the wood.

No. 1: All sections well filled, but combs uneven or crooked, detached at the bottom, or with but few cells unsealed; both wood and comb unsoiled by travel stain on otherwise.

In addition to this the honey is to be classified according to color, using the terms white, amber and dark. That is, there will be "Fancy white," "No. 1 dark," etc.

THE MARKETS.

New York, Dec. 8.—The demand is good for fancy honey. Only fair for off grades. Supply equal to demand. We quote Fancy white, 13 to 14c.; Amber, 12, dark, 10 to 11c. ped pound. Extracted, white, 6 1-2; light amber, 6; amber, 5 3-4; dark, 5 1-2. Beeswax is in fair demand, with supply light at 28 to 29c.—Hildreth & Segelken.

Boston, Dec. 7.—Owing to very large receipts from California we quote our market at present as follows: Fancy white in 1-pound sections, 16 to 17c.; A.No.1, 16c.; No. 1, 15c. No call for No. 2. Extracted, 6 to 8c., according to quality.—Blake, Scott & Lee.

Buffalo, Dec. 7.—The demand is very good just now for fancy stock. The supply is moderate. We quote, fancy comb, 14 to 15c. per pound; extracted, 5 to 7c. The demand for beeswax is always good. Price at this date, 30 to 33c., for fancy.—Batterson & Co.

Kansas City, Mo., Dec. 7.—The demand for honey is good, with large supply. Price of comb, 12 1-2 to 13c., dark, 11 to 12c., extracted, 5 1-2 to 6 1-2c Extracted honey is slow sale. Beeswax is in light supply at 30c.—Hamblin & Sappington.

Chicago, Dec. 7.—At this season of the year there is not much trade in honey, retailers having laid in their stock for the holidays. Fancy comb honey for the Christmas trade has brought 13 1-2c. No. 1 grades 12 1-2 to 13 cents; amber 9 to 10; extracted white brings 6 to 7 cents; amber 5 to 6 cents. All extracted honey is sold on its flavor, quality, kind and style of packing. Beeswax 28 to 30 cents.—R. A. Burnett & Co.

Kansas City, Mo., Dec. 5.—Receipts of comb honey larger, demand fair, prices easier. We quote fancy 24-section cases $2.75 to $2.85; No. 1, 24-section cases $2.75; No. 2, 24-section cases $2.65; Extracted white, 7 to 7 1-2c.; Extracted amber, per pound, 6 to 6 1-2 cents.—Clemons & Co.

Cincinnati, Dec. 15.—The demand for comb honey is slower now than it was six weeks ago, owing to the enormous quantities offered on all sides. Fancy comb is sold in single case lots at 14c. The supply of extracted honey is big, although the demand is good. We are selling amber extracted in barrels at 5 3-4 to 6 1-2c.; white clover in barrels and cans, 7 1-2 to 8 1-2c, according to quality. Beeswax, 30c.

The Fred W. Muth Co.

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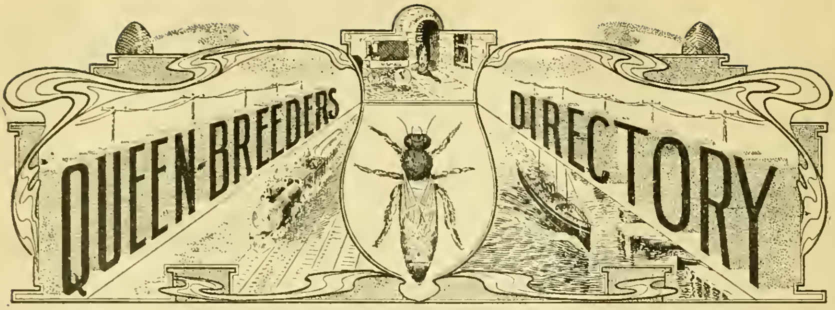

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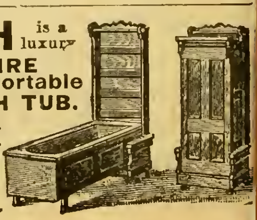

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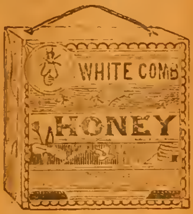

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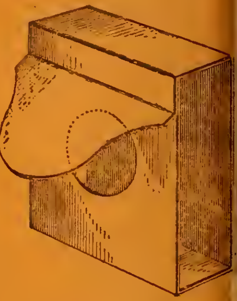

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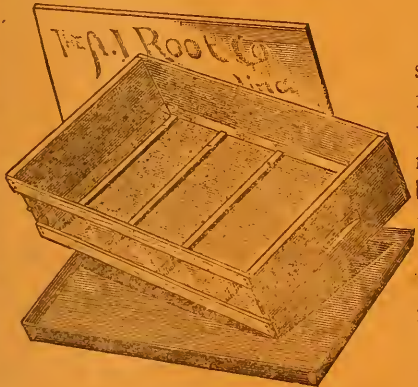

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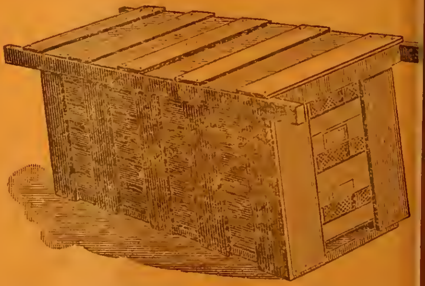

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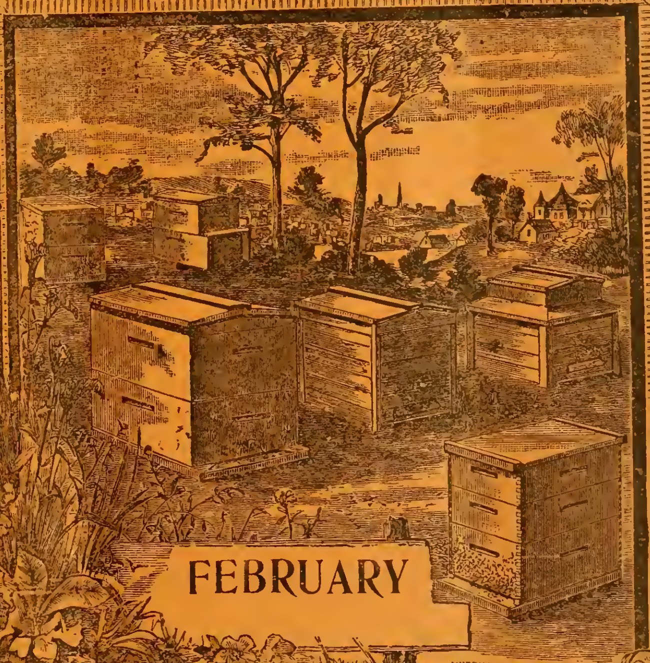
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VOL. XIV 1904 NO. 2

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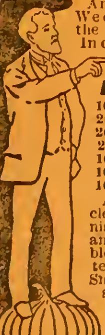

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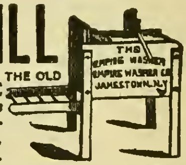
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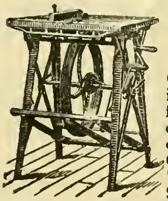

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THE AMERICAN BEE-KEEPER

Vol. XIV FEBRUARY, 1904 No. 2

Winter in Colorado.

BY EUGENE FIELD.

THE snow lies deep upon the ground,
The birds sing sweetly in the trees,
The scent of roses all around
Is borne upon the icy breeze.

Upon each irrigating stream
The skating youth indulge in play,
While women folk, like fairies, beam
In summer hats and white pekay.

The plumber taps the pipe that's froze,
And tears up ceiling, side and floor;
While round about the ice man goes,
And leaves his chattels at our door.

The man with frozen hands and feet
Is hurried off and put to bed;
Another, prostrate with the heat,
Wears cabbage leaves upon his head.

Thus speeds the weather in our State,
A batch of contradictions rude,
And we assign our varying fate
To this peculiar altitude.

FOUL BROOD IN THE APIARY.

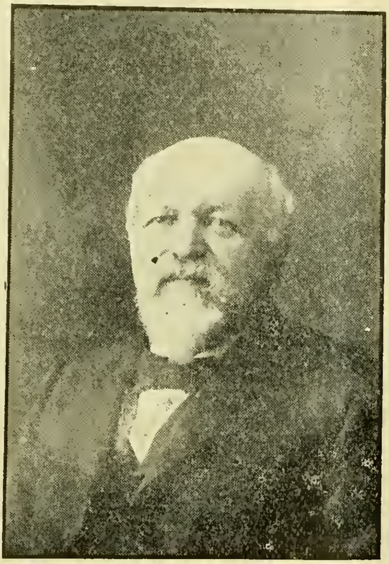
Prevention, Not Cure, a Solution of the Problem. An Exhaustive Discussion of the Subject by a Pioneer in the Formalin Treatment.

BY C. H. W. WEBER.

IN 1875 Hilbert discovered that bacteria are the originators of many infectious diseases.

In 1854 Cohn proved the vegetable nature of bacteria, and showed that foul brood was caused by those bacteria.

Dr. Kolbe advocated salicylic acid for curing foul brood. Since then, it has been proven, that the treatment of foul brood colonies with antisceptics is insufficient, and that a successful cure is only to be expected of the colonies of bees themselves and of their natural treatment and development.



In 1883 the creator of foul brood was described by Cheshire & Cheyne as a thin bacillus, slightly rounded on each end, having a length of 3-5 to 4 thousandths millimeter, and only colored with difficulty, they named it "Bacillus Alvei." The temperature most favorable for its development is 37, 5 degrees R. or 115 degrees F. (Maximum 47 degrees R., minimum 16 degrees R.). The spores, which are thicker than the actual bacillus are formed on the ends of the bacillus which assume the form of a spindle during the formation of spores, they can be killed on being boiled for three hours.

Professor Harrison discovered, that development of the bacillus alvei is stopped by betanaphtol, also by formic acid, formaldehyde and thymol. On adding 10 per cent. of formic acid to the food in the cells for the larvae the formation of the bacillus alvei is prevented.

By my own experiments and trials with the foul brood germ I learned that the fumes of formaline will kill the bacteria and spores on coming in contact with them. Thus far it was thought, that bacillus alvei was a particular variety of bacterium only found in colonies of bees, but September, 1902, Dr. Lambotte, of the University of Leige published that by careful examination he found, that the bacillus alvei is identical with the bacillus mesentericus vulgaris, so plentifully found in Nature.

From Fluegge and Migula we know, that, first, the bicillus mesentericus vulgatus is found on potatoes and milk, especially in the ground. Second, that the bacillus mesentericus fuscus is found on potato pealing and in the air. Third, that according to Globig, the bacillus mesentericus ruber is usually found on potatoes. To these three varieties Dr. Lambotte adds as a fourth the bacillus mesentericus vulgaris, whiich specie appears especially upon ill-kept bread, and which is said to be identical with the originator of the foul brood. It is expected that other bacteriologists will confirm Dr. Lambotte's statement.

The observations of Lambotte explain why so many bee-colonies become affected with foul brood, where any contagion from other colonies is excluded or absolutely impossible. They also prove, that the destruction or burning of the affected colonies is insufficient for the successful extermination of the foul brood. Of what avail will the destruction of affected colonies be, when the cause of the disease is spread over the entire universe, in the ground, in the air, on the plants and fruits?

Mehring writes in his book, that foul brood of the worst form can be produced by feeding a colony with the juice of dried fruit, which had been cooked and sweetened with sugar. This shows that the bacteria must be on fruits.

Phil. Reidenbach says: "The foul brood bacteria have not such destructive peculiarities that a larvae, coming in contact with it must get sick and die." Then he says, that he made an one per cent. solution of foul brood combs in water; this he added to the food for the larvae of different ages, in the cells by means of a camel's hair brush. In spite of this, all larvae developed into bees in due time, only when he introduced the pure foul brood to the food in the cells, the larvae died, but the colony did not become affected with foul brood on that account, for the dead larvae were removed by the bees and the colony had been primarily a strong one.

Some bee-keepers claim, that they gave frames affected with foul brood to strong, healthy colonies in order to reclean them, without any sign of sickness or disease being perceptible later on. Formerly it was customary to fight against the foul brood by means of disinfectants, however, without any satisfactory results being obtained; finally, the bacteriologists came to the conclusion, that the bacillus were merely killed but not the spores, for whose extermination the disinfectants would have to be so highly concentrated that the bees were unable to endure it. If weaker substances, for instance a solution of formaldehyde were used the malady was checked for the time being, but reappeared when the treatment was discontinued. These failures created a feeling of discouragement, and it was considered as foolish to try to cure the malady on these principles. But it is not quite so bad as it seems to be, for the hard work, the bee-keeper undertakes by trying to disinfect his bees, the bees themselves willingly relieve him of, because Nature has fitted them out to best perform this work themselves. The bees are best adapted to free themselves most rapidly of foul broody nymphs and larvae; for this purpose they produce special substances, for preventing the development of the bacillus and spores and for keeping them in a latent condition.

We are encountering a new miracle of the apiary. The keeping of the bacillus from further doing harm, in other words, the disinfection of their homes, is executed by the bees themselves by application of substances, which the human intellect first discovered after many years of research and which at present are accepted as the most effective disinfectants for our homes. First, the secretion of the salivary glands and the foodchyle of the bees contain abundant vinous acid, which is analogous with the acid in grapes and wine.

Second. A long time after the newly hatched bee has left the cell the brood cells still produce gasious formic acid. Third. The larvae contain plenty of concentrated formic acid, which as a free acid from the vinous acid of the food chyle oxidation. Fourth. The etherial oils, which the bees gather with the nectar and pollen, serve as disinfectants and act as a stimulant or spice for their food.

Phil. Reidenbach claims, that on chemical analysis of thymolatic Ajowan oil he found it to be a first-class stimulant and antiseptic, nearly as effective as sublimate. This, Dr. Lambotte endorses emphatically, saying, that he arrived at the same results by microscopic investigations. That the larvae contain substances of an antiseptic nature which prevent the development of bacillus, for which reason bacteria may appear in healthy larvae. The transsubstantiation in the bees and larvae, the formation of formic acid from vinous acid of the food-chyle by means of oxydation is of great value for keeping foul brood out of the colony. If the bees are to be energetic and ambitious, so that they clean up their brood frames and carry out all their dead larvae and nymphs; if they are to produce antiseptic substances in abundance, and if they shall be healthy and resistible against foul brood the following conditions must be complied with under all circumstances:

1st. A good ventilation of the hives.

2nd. Good food, honey and pollen.

3rd. A normal queen which produces strong, healthy population.

The results of poor ventilation of the hives are known: In winter a wet colony, moldy combs which are unable to produce formic acid, scarcity of air, increased wants for food, setting on brood in unreasonable season, scarcity of water, dysentery, chilled brood, foul brood. In summer, overheating, dullness, poor quality and scarcity of food, dying of the brood and again foul brood.

Experience teaches us that foul brood is easily produced in those colonies, where there is poor ventilation. Honey is the only food for bees, sugar containing hardly any albumen will not have the desired effect. Whoever had the opportunity to see how bees prefer honey when sugar is set next to it; whoever has not observed, that in spring the swarms fed in winter with honey are in advance of those raised on sugar, will have to learn from physiology, that the development of all animals and formation of nitrogenous organic substances depends on the albumen in the food; hence the energetic active spirit of the bees depends on their food. This shows, that the bees need honey and pollen in order to be able to take up the fight against foul brood. What has a colony of bees got to nourish its brood in spring, witn a solution of sugar which contains scarcely any albumen? Nothing, not even what they need to keep up the energetic spirit to throw out the dead larvae and nymphs. How valuable the albumen is in the food, we can readily observe in the wild animals. Without albumen where would their energetic spirit be? A foul brood colony never shows life. Pollen is the food for bees, which contains the most albumen. What pollen amounts to we can learn from the Heide bee-keepers. Mr. Lehrzen, of Lueneburg, writes: The bee-keepers claim that if the bees are left in one place for three years, they will all be infected with foul brood, caused as the bee--keepers claim, by the lack of pollen until late in tne season. This also shows, that the originator of foul brood must be widely diffused, for if foul brood appears in consequence of missing pollen, the foul brood bacteria must be very plentiful. When pollen is missing the bees will keep themselves for sometime as the honey contains about from 1 to 3 per cent. of albumen. The most of this in digested form called peptone, which does not melt on cooking. The presence of peptone in honey I have found on analysis. Out of the salivary glands, the peptone is more or less transformed into a sugar solution, but in quantities too small. Often the queen is at fault, that the colony becomes sick, if she produces more or less degenerated bees. Degeneration shows itself on the creatures by organic defects, insufficient development, small resistability against contagious diseases, short life, especially by laziness and lack of energy. The degeneration is a consequence of abnormal conditions, especially copulation of near relation. Look for good ventilation, good food for fresh blood and for queens not related to your stock.

Other precautions for the prevention of the malady, which, however, are of secondary importance, must be taken into consideration. Under all circumstances keep away contagious combs and honey as much as possible. When buying honey for feeding, we should be very careful to place no foul brood combs into healthy colonies; watch the brood cells at all times, in order to detect the presence of the disease in the beginning. Disinfect all used hives, which come from other apiaries, fumigate them with formaline. All bacillus and spores are positively killed by the formaldehyde fumes under the following conditions: They must be so exposed that the fumes can come in contact with them, they may only be covered with thin materials, for instance, paper, one cubimeter of air must at least contain eight grains of formaldehyde, the air of the respective department must be very moist and warm and the fumigation must be continued for at least seven hours.

Formaldehyde is highly recommeded, because it leaves no odor or residue in the hives or combs. For fumigation, pastilles in a retorte may be used, the fumes out of the retorte to be led into the hive, into which a vessel with boiling water had been previously placed. After ten hours all foul brood, bacillus and spores will be dead. Or, the lamp, which I described about a year ago, may be used.

A 40 per cent. solution of formaldehyde is called formaline. One pastille produces one grain formaldehyde. First, it acts as formaldehyde, then as formic acid into which it was transformed by oxydation. $C.H.^2O$ (formaldehyde + ^2O (oxygen)=$C\ H^2O$ formic acid). Formaldehyde readily oxydizes into formic acid in the air. It is not impossible that the escaping formic acid, which is generated in the brood cells, originates from formaldehyde.

Is it not interesting to know that science has found the way of Nature, and that the antiseptics we now use and which are acknowledged to be the best are the same, which Nature has forever used in the bee hive? We no longer place all our hopes upon the application of one remedy, but rather upon the colony itself, upon the conditions prevailing in the hives, upon the conditions of the colony, so that it is able to produce the substance which it needs for the prevention of the evil, upon the energetic spirit which will make the bees throw out the dead larvae and nymphs.

The strength of the colony which has to be treated must be taken into consideration. When the disease is noticed in a weak colony, I would not try to cure it, but would unite it with another one of the same condition, as the value of time thus employed would repay the trouble. The sickness passes through various stages, we may therefore make two divisions, calling the one the first or harmless stage, and when it is further advanced, the second or dangerous stage. A strong colony throws out the nymphs and larvae when dead at once and cannot become foul broody.

If the colony suffers, however, under the depression of unhealthy conditions by not having enough supply of healthy food or from exposure to the cold, or from overheating, then we notice dullness and laziness on the part of the bees and they no longer throw the dead larvae and nymphs out of the cells. These suffering bees may make an attempt to do so, or may gnaw at the dead larvae and nymphs, removing the cappings of the cells in which they had died two days after being capped. In such combs, we see uncapped cells among the perfectly capped brood, these uncapped cells contain white and brownish nymphs which had died two days after being capped. This can be seen plainly on the pointed head. Such a colony, which has uncapped foul brood cells, suffers from the harmless stage. If the bees notice the foul brood, they gnaw the larvae, nymphs and cappings, but can not resolve to clean the cells. If, however, better weather and food sets in, they often awake to new life; they clean the cells and by so doing destroy the harmless foul brood. The same result may also be obtained by artificial means. If such a colony, where there is no flow of honey, be daily supplied with prepared honey pollen, at the same time placing a piece of blotting paper, on which from 40 to 50 drops of Ajowan oil, rosemary oil, melissen oil, or anis oil had been poured, on the bottom board of the hive you will be astonished at the stimulating effect the oil will have upon the colony, how it will bring out new life and how the colony will recommence to clean up and cast out the dead larvae and nymphs. It occurs that a colony becomes affected with the harmless foul brood and is again cured without the owner noticing it.

On longer duration of the disease it becomes more and more contagious, the number of dead larvae and nymphs grow together with the depression of the colony. The bees no longer uncap the cells, but leave the most untouched, they bite a small hole in the capping and then the dead nymphs begin to putrefy and transform into the well known bad-smelling brood mass. This is the dangerous stage of foul brood. It now declines from step to step. But even this dangerous stage is not always so bad, but that the colony may become re-encouraged if fed for some time or treated with the above mentioned remedy. There are several cases known, that affected colonies were cured by a honey flow. In such cases in which the colony was treated with stimulating food and etheric oil, without the desired effects having been obtained a better queen must be substituted for the old one. Disinfecting and changing the hives is only necessary, when the malady has developed to a high degree.

Whosoever treats his colony carefully and takes care that his colonies are supplied with good and plentiful food, fresh blood, good ventilation, and good queens, will be safe from the bad or dangerous stage of foul brood. If foul brood ever appears, the careful bee-keeper will surely cure it in the described manner, he will constantly watch his brood and if he notices any gnawed cells, he will attend to them at once, so that the evil does not gain the upper stage. Last summer, after the honey flow was over, I had the opportunity to witness a party using the McEvoy treatment. For a while we thought that it had cured, but after some time the sickness reappeared, although the treatment had been carefully performed. But as only sugar syrup was fed, the energetic, active, ambitious spirit of the bees was missing. This I also noticed, when formaldehyde fumigation was used exclusively. This leads me to the conclusion that if healthy honey and pollen in oils had been used the cure would have been perfect. There always will be bee-keepers who will not take proper care of their bees. For such, a foul brood law, compelling them to disinfect hives and colonies is necessary.

The prevention of disease and the natural care of colonies are the main thing, but not the destruction and the curing of the malady. The enemy is only to be kept out of the apiary by natural ways. Keep them so, that when spring reappears and revives all nature, your bees awake from their slumbers strong and healthy, not weak, perhaps so weak they are beyond recovery.

Cincinnati, Ohio, Jan. 16, 1904.

BEES AND ANTS.

Some of the Obstacles with Which the Florida Bee Keeper Has to Contend.

By C. S. Harris.

A FRIEND a few miles distant recently wrote me that on visiting an out-yard a day or two before he had found it in an uproar, with a big cluster of bees about five hives in different parts of the yard, three of which had been cleaned out by the robbers. He thought ants were at the bottom of the trouble, which was very likely the case, as they had begun to show themselves in my apiary, although a month earlier than I usually have trouble with them.

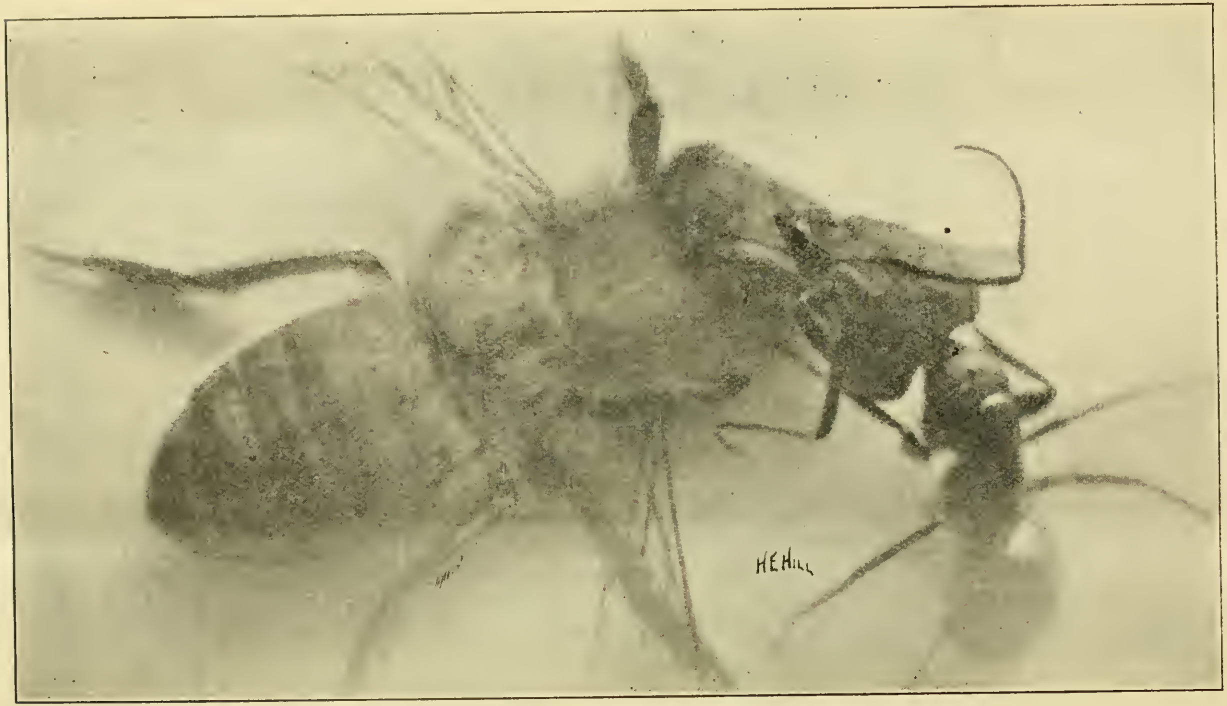
We have many branches of the ant family here, but only two of them I find especially troublesome in the apiary, one being a small black ant that nests about the hives and is, I sometimes think, more annoying to the apiarist than to the bees, as they crawl upon the person and inflict their sharp stinging bites while he is engaged about the hives. They will occasionally over-run and destroy a very weak nucleus.

The other, and only one to be feared, is a large red ant, the workers of which are about three-eights of an inch in length, while the soldier ants are often a half-inch long, and provided with strong, sharp jaws capable of cutting even the human skin. These ants are great foragers and will travel long distances for food. While they will eat honey and other sweets, they seem particularly fond of meat diet, and attack the bees in order to feast upon the brood. They work only at night as a rule. They are very round-a-bout in their attacks at times, passing a long row of hives to select one farthest from their nest: sometimes going up one tree and down another many feet from their starting point, making it difficult to line them home, which is the best way to deal with them.

They nest in rotten stumps and roots, or trash of any kind and sometimes, though I think not often, in the open ground. They frequently have a series of colonies radiating from the old nest and these various colonies seem to live in harmony and unite in securing food supplies.

The queen is about the size of the soldier ants or perhaps a trifle larger, with a more tapering abdomen. The queens and drones, or male ants, are provided with wings, which are either shed naturally or bitten off by the workers after the mating period.

I have tried various poisons upon them, giving it on finely-chopped meat or drone brood, and I think that Paris green is effectual, if you can get them to take the meat which for some reason they sometimes refuse to do. They will usually take any of the phosphorus preparations just as they come from the can or bottle, but while it seems to reduce their numbers, it does not appear to destroy the colony entirely. The only sure way is to line them to their nests at night by the light of a good lantern or bicycle lamp and then kill them by burning, or the use of bi-sulphide of carbon.



BEE ATTACKED BY FLORIDA ANT.

Their manner of attack upon the bees is peculiar and most effective. They first capture the guards and then, entering the hive, bite a wing from any bee that opposes them. The bees so maimed seem to realize at once that their days are numbered and crawl from the hive to die.

A friend has just reported to me having witnessed the mating of numbers of queen ants and drones, which while resembling in some respects the connection of queen bees and drones, differs very materially in others. Although the drone ant survives several meetings with queens, his end is only for a little time delayed for he is not allowed to return to the nest, the workers driving him away whenever he attempts to enter.

Holly Hill, Fla., Aug. 5th, 1903.

SHALLOW OR DEEP FRAMES.

The Man and Management, Not the Depth of Frame Alone, Responsible for Results.

By Arthur C. Miller.

W. W. McNEAL seems to be of the stuff from which enthusiasts are made, and as such he is a welcome member of the guild of beecrofters. His zeal in the advocacy of deep combs has led him into troubled waters. For evidence in support of his belief in such frames he has accepted without questioning several fallacies. Let us consider them.

But first I would call attention to possible differences in climate between Wheelersburg, Ohio, and Providence, R. I. Wheelersburg is over two degrees further south than Providence, and the climate, as I chance to know, less severe than here, so what will suffice the bees here should certainly do so there.

Mr. McNeal says "the little shallow combs do not afford that protection to the colony so essential to good wintering and early breeding." To which I would say: It depends on the man who handles them. Under right conditions bees will winter in anything which will keep rain and snow off of them. I have wintered colonies in unprotected, single-walled hives only 4 3-4 inches deep; and I constantly winter most of my bees in two chambers of 5 1-2 inches depth each. He says: "The shallow frames are designed expressly to over-come the protective habits of the bees in the storage of honey." Certainly, to overcome that habit during the honey flow for man's especial benefit. And where he has interfered for his own advantage and deprived the bees of superior stores of high commercial value, he must in his own interest use his intelligence in supplying the bees with some less valuable food or permit them to retain for their own use less desirable (to him) honey gathered at some other time.

If we use the divisible brood chamber hive we must do so intelligently. So used it becomes a valuable ally; abused, it is a two-edged sword.

Mr. McNeal bases his argument for deep frames on the assertion that "the depth of a wholly natural comb exceeds its width." It all depends on the shape of the domicile Nature has supplied. I have seen a single comb a yard wide, and three to four inches deep. Just one comb stretched out in a long narrow cavity. Nature must have played a scurvy trick on those bees.

"Bees build downwards far more readily than sidewise, etc." On the contrary bees build sidewise twice as fast as downwards and under some conditions increase that ratio. True, a small, spherical cluster of bees will start one comb and build downwards twice as fast as they build sidewise, but multiply that cluster by four and string them along the top bar of a frame, and we at once have four combs building. When each comb has gone down two inches, each will have gone sidewise one inch, and the aggregate sidewise growth is four inches, which is twice the downward growth. Theory? Not a bit of it. Go to the bees and study the ways of various sized clusters in variously shaped domiciles. Bees clustered in L frames start from two to five combs and they meet and extended along the whole 17 inches of the top bar before they are within an inch of the bottom bar at any point. This is two inches of lateral growth to one of vertical for one frame, but the work is progressing simultaneously in ten frames and we have an aggregate lateral growth of 170 inches to 8 inches vertical, a ratio of 21 to 1. If Mr. McNeal is going to depend on the bees for his evidence I fear he will have to revise his theories or lose his case. If he cares to try he can so build that whole 170 lateral inches of comb in a straight line and no matter what the vertical room the downward ration will remain about as above.

I think it will be seen that "shallow chambered" hives are quite as well adapted to the bees' natural desires as are "deep chambered."

Mr. McNeal says "the advocates of shallow chambers are very reticent about extreme precautionary measures necessary against the inroads of frost and ice." Again the personal element enters. If he will treat colonies in his deep hives the same as they are often treated in the shallow ones, just as poor results in wintering will be secured. When we have run a colony under high pressure for several months it is unreasonable to expect it to be as good as one which has jogged along. If, by our manipulations, the queen has found lots of room for eggs and the nurses have done their part in supplying stimulating food, she is ere many weeks ready to slack up work. Then we get a declining colony and by the time fall arrives it is comparatively small in numbers and its population is mostly old bees. Now if a good fall flow sets in early the colony will recuperate before cold weather and go into winter quarters with a goodly lot of strong young bees and an abundance of sound, well-placed stores. But their keeper is avaricious and must have that honey, so during the fall flow "high pressure" is again brought to bear with the result that when cool weather arrives, the colony is not in the best of physical shape and is virtually out of food. Again their discerning master steps in and gives them a lot of raw food (sugar syrup) to be converted and stored. The labor involved costs valuable bee life and energy, at a time when they can ill spare it and also at a time when the work is doubly difficult from lack of external heat.

What is the result? The bees go into winter quarters half worn out, with imperfect food imperfectly placed, and if they come out in the spring at all, it is in poor condition. And the hive is to blame!

Yes, a deep framed hive does help protect the bees from an avaricious master. But wouldn't it be better to hasten his exit from the craft?

Mr. McNeal seems to think big colonies cannot be brought through the winter in shallow chambered hives. Also that bees in such hives need different protection than those in deep hives. Perhaps he can explain why I have no trouble in wintering bees either with or without protection (Chaff packing) with no upward ventilation and in very shallow or deep hives. Perhaps he can explain why bees will winter well in a box a foot cube without a bottom, set on two blocks and with the cluster hanging in sight below the combs and within an inch of the snow and the temperature frisking but little above zero. The only ventilation that colony had was at the bottom and there seemed enough there certainly. The only protection it had was the half-inch pine box.

I will save him the trouble of guessing.

Given a good queen, an abundance of healthy, vigorous bees, plenty of stores given early enough so the bees can readily "ripen" them and store them where their instincts dictate, and such a colony will winter in any old receptacle which will keep snow and rain off of them and come out in the spring in the best condition.

A hive is big or small not entirely by its cubical dimensions but also by the race or strain of bees housed within it. That which is too big to be profitable with one strain may be altogether too small with another. Its shape, however, is a matter merely of man's convenience.

There are good and bad shallow-chambered hives and when not properly constructed (as to bee-spaces, thickness of top and bottom bars, etc.,), they undoubtedly will make trouble. But the principle should not be sweepingly condemned on account of illy made hives.

For Mr. McNeal's comfort let me say that there are conditions under which just as good results can be obtained with deep-chambered hives—perhaps better, from some points of view. The only way to determine which hive is best in one's locality is to test both types side by side, giving both equally intelligent care.

When in doubt go to the bee and learn of her. Providence, R. I., Jan. 7.

THE VALUE OF APICULTURE IN AMERICA.

By "Swarthmore."

ALTHOUGH there are thousands of dollars invested in bees in this country, and even though hundreds of tons of honey are produced each year, the industry of apiculture is yet in its infancy.

It is only recently that any serious thought has been given to organization with a view to systematic and agressive marketing at a profit.

Even by the crude methods employed by producers in past years apiculture has paid large returns from the capital invested—what wonders can be expected from organized force has been proven time and time again. Take for instance the fruit product of California. There was a time when quite all the luscious fruit of the Pacific slope were left to rot on the ground for the simple reason that organized effort had not been directed to thorough distribution of the product in marketable form.

The fruit growers of California organized and there is now hardly a city, town or hamlet in the United States where the fruits of the Pacific slope cannot be purchased at a reasonable, profitable figure—all due to thorough organization and consequent adequate marketing facilities together with careful packing and selected grades. The fruit industry under the management of consolidated interests has redeemed the State of California.

Honey is largely used in the manufacture of many articles of food because of its wondrous preserving qualities; cakes, for instance, will never become hard or dry if honey enters into the mixture; beer is more quickly fermented and tobacco is better packed in plugs when honey is used.

Aside from that used in packing food products and in the preserving of fruits and confections, there are food qualities in honey pure and simple which have been acknowledged the world over for centuries.

What seems to be most lacking in the handling of honey is its proper placing before the consumer in neat, inexpensive packages and the pushing of sales through judicious advertising. If such a sweet as corn syrup can be profitably moved in this manner surely honey has a most brilliant future.

Swarthmore, Pa.

Ohio's New Foul Brood Bill.

The young bee-keepers' association recently organized in Hamilton county, Ohio, has been "stirring up the animals" in the Buckeye State, and its latest move in the direction of improving apicultural conditions in Ohio has been the drafting of a foul brood bill, which is now before the Ohio legislature. We have received a copy of the bill from Secretary Gilliland, and have pleasure in presenting the full text thereof, as follows:

76th General Assembly, Regular Session.

Mr. Herrick.

A BILL.

To provide for county inspectors of apiaries and defining their duties and providing for their compensation, for the purpose of curing and avoiding foul brood, or other diseases, among bees and their hives.

Be it enacted by the General Assembly of the State of Ohio:

Section 1. That, whenever a petition is presented to the board of county commissioners, of any county in the State of Ohio, signed by three or more persons, all of whom are residents of the said county, and possessor of an apiary or place where bees are kept, stating that certain apiaries within said county, are infected with the disease known as foul brood, or any other disease, which is injurious to bees or their larvae, praying that an inspector be appointed by said board of county commissioners, said board of county commissioners, shall within five days, after the presentation of said petition, appoint a person, as bee inspector, who is a resident of said county who shall be a skilled bee-keeper, having thorough knowledge of foul brood and other diseases injurious to bees and their larvae and the treatment of same.

Section 2. The person so appointed shall within five days after his appointment file with the said board his written acceptance of the office, or, in default thereof, or in case of vacancy, the board shall in the same manner make new appointments until the said office is filled. The inspector shall hold his office for two years and until his successor is appointed and qualified, except when upon petition of ten persons, (each of whom is a resident of said county and possessor of an apiary), to the board of county commissioners of said county, may remove said inspector for cause after a hearing of petitioners.

Section 3. Any bee-keeper, or other person who shall have cause to believe that any apiary in his county is affected with foul brood or other disease, either in his own apiary or elsewhere, shall make affidavit stating, that on information or belief, he believes that certain apiaries, describing the location, naming the owner or keeper, is affected with foul brood or other disease, and his ground for such belief. On receiving said affidavit from any source of the existence, in any apiary in his county, of the disease known as foul brood, or any other infectious or contagious disease of bees, the county inspector of bees, shall forthwith inspect each colony of bees and all hives, implements and apparatus, honey and supplies on hand or used in connection with such apiary and distinctly designate each colony or apiary which is infected, and notify the owner, or person in charge of said bees thereof, in writing or otherwise, and the owners of said bees, or the persons in charge thereof to practically and in good faith apply, and thereafter fully and effectually carry out, to and upon such diseased colonies, such treatment as may have been prescribed by the said inspector for such cases; also thoroughly disinfect to the satisfaction of the inspector, all hives, bee-houses, combs, honey and apparatus that have been used in connection with any such diseased colonies; or, at his election, the said owner or person in charge of such bees may, within the same time, utterly and completely destroy said bees, hives, houses, comb-houses, honey and apparatus, by first killing the bees, (by the use of sulphur fumes when the bees are in the hives for the night) by fire, or bury the same in the ground with a covering of not less than two feet of earth.

Section 4. The county inspector of bees, shall have the right to enter the premises of any bee-keeper, where the bees are kept and inspect such bees, and any person resisting or refusing to allow said inspection, by said bee inspector, shall be guilty of a misdemeanor, and may be then and there arrested by said bee inspector or person deputized by him, and brought before a Justice of the Peace and upon conviction, shall be fined not less than ten dollars, nor more than twenty-five dollars.

Section 5. After inspecting, working with, or handling infected hives, or fixtures, or handling diseased bees, the inspector, or other person shall, before leaving the premises or proceeding to any other apiary, thoroughly disinfect his own person and clothing, and shall see that any assistant or assistants with him have also thoroughly disinfected their clothing and person.

Section 6. The inspector shall have full power in his discretion to order any owner or possessor of bees, dwelling in box-hives in apiaries where the disease exists (being mere boxes without frames) to transfer such bees to movable frame hives within a specified time, and in default of such transfer, the same shall become unlawful and the inspector may destroy, or order for destruction of such box-hives and the bees dwelling therein as a public nuisance.

Section 7. Should any owner of, or keeper of, or other person having diseased bees, or their larvae, or of any affected hives or combs, appliances or utensils for bee-keeping, sell or barter, or give away the same, or allow the same or any part thereof to be moved, such person shall be guilty of a misdemeanor and upon conviction, such person shall be fined not less than ten dollars, nor more than twenty-five dollars.

Section 8. Should any person, whose bees have been destroyed or treated for foul brood, sell, or offer for sale, any bees, hives or appurtenances of any kind, after such destruction or treatment, and before being authorized by the inspector to do so, or should he expose in his bee-yard or elsewhere, any infected comb, or other infected thing, or conceal the fact that such disease exists among his bees, such person shall be guilty of a misdemeanor, and upon conviction such person shall be fined not less than ten dollars, nor more than twenty-five dollars.

Section 9. If any owner or keeper of bees knows of, or after being notified by the county bee inspector, that foul brood or other infectious or contagious disease exists in any of the hives in the apiaries owned or in charge of said persons, and shall fail to comply within ten days from receiving said knowledge and the date of receiving instructions from the county inspector, to cure or destroy the bees or hives, or their appliances, such person shall be guilty of a misdemeanor, and upon conviction thereof, such person shall be fined not less than ten dollars, nor more than twenty-five dollars.

Section 10. When the owner or possessor of bees, shall disobey the directions of said bee inspector, in curing or destroying any diseased bee, honey, hives or appliances shall become unlawful and a public nuisance, and the said bee inspector shall at once destroy said bees, honey, hives or appliances, and may deputize such additional persons as he may find necessary to effect said destruction.

Section 11. The county inspector shall make a monthly report in writing, under oath, to the board of county commissioners, in which report he shall state the number of days and number of hours in the preceding month spent by him in the actual discharge of his duties, and shall in said report state the name of the owner or keeper, and the location of the apiary upon which such time was spent in curing or destroying said bees, together with an itemized account, showing the dates and amounts, for what incurred, money spent for any discharge of his duties, and to whom the same was paid, and for what services and considerations such indebtedness was incurred, and accompany said report with the affidavits given him under and in pursuance of Section 3 of this act, and make full and complete report of all he did, and results of his treatment of any apiary.

Section 12. After the county inspector of bees in any county shall make report, as provided in the preceding section, said county commissioners shall allow and pay to said county inspector of bees two dollars for a full day and one dollar for each half day, necessarily and actually employed in the discharge of his duties under this act, together with his necessary and actual expenses while so employed, to be audited, allowed and paid by the county officers.

Section 13. This act shall take effect and be in force from and after its passage.

THE DICKEL THEORY.

By Henry E. Horn.

ON PAGE 272, December number American Bee-Keeper, Mr. Adrian Getaz reports Mr. Arnt Bellet, of Spain, as insisting that the Dickel theory is false, on the ground that, if correct, "laying workers and virgin queens should produce workers like regular queens." Mr. Getaz adds, initiating the readers into Dickel's claims, that the latter's theory postulates that "all eggs laid by the queen are the same, and that the difference of sex is due to manipulation (?) of the workers."

Mr. Getaz' statement of Dickel's theory is not incorrect, but insufficient, and, read in connection with Mr. Bellet's objections, misleading.

Ferd Dickel, of Darmstadt, teaches that all eggs laid by a normal, fertilized queen are fecundated eggs, that they become impregnated by the male spermatozoa at the moment they pass down through the oviduct into the cell —all alike, without exception, and that the difference of sex in the later on hatching insect is due to the actions of the nurse bees; be it, that the only just attached sperm-fibre of the egg is either removed altogether or neutralized by some particular gland secretion of the nurses, or be it, that the quality and quantity of food given to the larvae in earliest stages determines the change. Certain it is that sex-differentiation rests with them.

In contradiction, Dr. Dzierzon, who, as is so well known, holds that the queen immediately before depositing the egg determines at will whether it shall hatch worker or drone. F. Dickel furnishes the following proof-data to the bee-keeper: During the summer supply yourself with a full set of drone-comb. In the early fall shake or brush your selected colony, queen and all, into this drone-comb hive, afterwards feed up for winter, any way suitable. In the spring after brood raising has well started (bees will readily raise workers in these drone-combs) but before drones are raised normally, remove the queen, and in the course of time this colony will show queen-cells, worker-brood and round-capped drones.

Someone has said that the female is Nature's darling, for in the reproduction of the forms of animal life abundance and richness of food supplied in earliest stages favors the production of females, while the contrary treatment favors the production of males a principle with which, according to Dickel, the as yet thickly-veiled life within the bee hive is in entire accord.

For the practical bee-keeper the importance of Dickel's theory lies perhaps mainly in the fact that true and absolute in-breeding becomes an easy possibility, no matter by what stock one may be surrounded, or how large and varied one's own apiary may be. Other things being equal good honey crops depend principally on good queens and pretty nearly every bee-keeper would be able to double his crop if all his queens came up to his best.

Riverside, Cal., Dec. 18, 1903.

The National Bee-Keepers' Association.

Chicago, Ill., Dec. 31, 1903.

To W. F. Marks, Chairman Board of Directors N. B.-K. A.:

We the committee selected to count the ballots cast at the annual election for General Manager and three Directors of the National Bee-Keepers' Association, also on Amendments to its Constitution, have duly counted the same, and report as follows:

Total number of votes cast, 552; necessary to elect, 277.

Result of the Ballot.

For General Manager.—N. E. France, 518; George W. York, 8; Emerson T. Abbott, 5; W. L. Coggshall, 4; Dr. C. C. Miller, 2; and the following 1 each: C. A. Hatch, O. L. Hershiser, J. F. McIntyre, E. S. Lovesy, Louis Scholl and W. Z. Hutchinson.

For Directors.—R. C. Aikin, 444; P. H. Elwood, 404; Wm. McEvoy, 268; E. R. Root, 195; George W. York, 20; Prof. A. J. Cook, 19; Emerson T. Abbott, 19; W. L. Coggshall, 10; G. M. Doolittle, 9; J. F. McIntyre, 9; Wm. Rohrig, 9; E. S. Lovesy, 8; H. H. Hyde, 7; H. C. Morehouse, 6; Dr. C. C. Miller, 6; D. W. Working, 5; Frank Benton, 4; N. E. France, 4; M. A. Gill, 4; C. H. W. Weber, 4; Frank Rauchfuss, 4; C. P. Dadant, 3; L. Stachelhausen, 3; O. L. Hershiser, 3; W. Z. Hutchinson, 3; M. H. Mendleson, 3; W. O. Victor, 3; the following, 2 each: J. J. Cosby, J. T. Calvert, Fred W. Muth, W. F. Marks, A. C. Miller, F. Wilcox, Chalon Fowls, F. E. Brown, J. A. Stone, J. L. Strong, W. S. Pouder, J. T. Moore, W. A. Selser, J. E. Crane, J. B. Rick; and the following 1 each: John Rick, J. H. Hunter, Wm. Stolley, J. W. Johnson, W. Z. Hutchinson, Ude Toepperwein, Arthur Stanley, Harry McCombe, C. A. Hatch, G. W. Brodbeck, J. P. West, H. W. Coley, Mrs. H. C. Acklin, Mrs. N. L. Stow, W. J. Craig, J. S. Bruce, E. E. Hasty, C. M. Morris, E. C. Atkin, J. M. Hambaugh, Huber Root, E. B. Tyrrel, N. L. Stevens, W. D. Wright, J. A. Green, F. F. Jansen, J. Q. Smith, Gus Dittmer, J. E. Chambers, J. E. Hetherington, H. G. Quirin, K. H. Keeler, I. J. Stringham, F. Greiner, J. C. Harris, N. C. Acklin, Wm. Russell, Frank Moeser, A. B. Mullen, Chas. W. Voight, John Torens, F. O. Hallisbury, J. M. Jenkins, R. B. Herron, H. E. Wilder, S. C. Ferguson, W. A. Hickox, A. A. French, J. F. Flory, Wm. Couse, M. V. Facey, M. Hart, J. W. Ferree, Henry Alley, J. C. Corey, J. C. Morrison, Geo. E. Hilton, John Myers, Chas. Stewart, C. P. Gillette, Edwin Bevins, N. B. West, and C. H. Pierce.

For amendments, 491; against amendments, 10.

(Signed) George W. York,
Secretary.
C. C. Miller, Dir.

Whereas, N. E. France, having received "a majority vote of the members voting," for General Manager, is elected General Manager of the National Bee-Keepers' Association.

R. C. Aikin and P. H. Elwood, having received "a majority vote of the members voting," for Directors, are elected Directors to succeed themselves. No one having received "a majority vote of the members voting," for a Director to succeed E. R. Root, E. R. Root will hold over as provided in the Constitution under which this election was held.

The Amendments to the Constitution, having received "a majority vote of the members voting," are adopted.

W. F. Marks,
Chm. Bd. of Directors N. B.-K. A.

HARDSCRABBLE LETTER.

Dear Brother Hill: I've just been a-lookin' over the January Bee-Keeper. Don't look nateral; what's happened? Hully gee! If that little Miller ever gets after McNeal you'll see fireworks; why Mac is just a-trampin' all over his preserves. Listen.—"How beautifully perfect and the combs built under the guidance of a home-loving queen in the bloom of her youth!" Whoop! John Hewitt is fixing trouble for himself just about as fast as the law will allow him. Hear this.—"I see a lot of silly stuff about rearing queens. The so-called Doolittle system of making artificial cells and putting in royal food being about the favorite. All that Doolittle discovered (?) will be found in Huber's book published over 100 years ago." Poor Doolittle. But say it is kind of ruff to take away the only thing left of his system that had been allowed as his own. Moral: Don't "borrow." Hewitt is 'bout like the rest of us; his baby is the only one wuth a farthing. And like we-uns—or like some of us—he speaks loosely, calls using larvae two days old, rearing queens from the egg. Its gol-durne strange how blamed hard it is to say things exact when it spoils our story.

"Beeswax" D—D—Alley soars on lacy wings to realms of fancy on the uses of the sticky yaller gum of the festive bee. Huh! Why the whole world's output wouldn't go quarter round for the work he's laid out for it. He's got another guess a-comin'. But it does enter into the arts pretty well, tho' the cheaper mineral waxes have crowded it out of most places.

Bees in a green house for producin' colic, which is to say cucumbers. Ruther interesting is that account by Reeve. If 'twant for the cold I'd like to go see some of them greeneries, but as 'tis I'll stay where I'm comfortable.

Bee Humbug. Who said a bee wasn't a hum-bug? Bully, the Irishman has got after Miller. St'boy! Sic him!

"A Milk and Honey Farm" by Herring. What's a herrin' got to do with a milk farm anyhow?

Jameson tells a nice tale about how to wire brood frames. I can beat him all holler. It's DON'T.

A mysterious Act. Nothin' mysterious about it; the bee is just takin' an afternoon chaw of tobacco.

"Large Honey Crops." Greiner comes to Johnson's rescue in swell shape. Not always swift, is G, but most always sure and sound.

"Best Honey Gatherers." No best ones, only some more cussed than others.

"Artificial Pollen." I wish Harris would tell us of some ere way to keep it out of the hives, leastways what part we don't want.

"Johnson's Say." So he lacked the courage of his convictions, did he. Didn't sound so, but the human speech do be a queer thing.

I like that picture of Old Brash. She had her suspicions of you when you snapped that camera.

The Round World and Editorials seem ruther biled down.

Harry, my boy, will you never learn discretion? A department for new apiarian inventions forsooth. Why b'gosh man ye'll be swamped with stuff from every scatter-brained chap in the country; yes, and out of it, too.

A nephew of mine from Colorado dropped in on me a few days ago and as we talked over climates I was reminded of what Eugene Fild said about that of Colorado.

Yours as ever,
John Hardscrabble.

"What Eugene Field said about that of Colorado," will be found on the title page of this number of the Bee-Keeper. —Editor.

Dartmoor Honey.

From the blossoms of the furze the bees derive their aromatic honey, which makes that of Dartmoor supreme. Yet bee-keeping is a difficulty there, owing to the gales that sweep the busy insects away, so that they fail to find their direction home. Only in sheltered combs can they be kept. The much-relished Swiss honey is a manufactured product of glycerine and pearjuice, but Dartmoor honey is the sublimated essence of ambrosial sweetness in taste and savor, drawn from no other source than the chalices of the golden furze, and compounded with no adventitious matter.—S. Baring Gould.—A Book of Dartmoor.

THE
Bee-Keeping World

GERMANY.

The reply given in Praxisder Bzcht. as to how best to treat after-swarms strikes me quite favorably. It says: It is advisable to give them full combs; if such are not at hand give frames completely filled with foundation. Then have no brood to take care of for some time and are particularly in good shape to store honey. The drawn combs given them places the colony in the best possible shape for storing.

The same paper reports of an uncapping machine exhibited at a bee-keepers'' meeting in Alsass-Lovain. The machine was operated and uncapped a comb in a minute on both sides. The inventor, Ollinger, was urged to have his invention patented.

Ruberoid for covering bee-houses and hives is recommended in Ill. Deutsche Bztg. The claim is made that repairing is not necessary. It is odorless and wears well.

Professor Bachmetjew, and before him Professor Koschewnikow have ascertained that there is a slight difference in drones originating from a normal queen and such as originated from unfertile queen and workers. The question is, however, not fully proven whether or not drones of latter origin are virile.

Editor Reidenbach (Thalz. Bztg.) prefers to take the renewal of queens into his own hands. He prefers swarming cells from his most productive swarms. He allows these colonies to swarm, and when the first after-swarm issues he cuts out all cells, cages them and the emerged queen in separate cages. With the bees of the after-swarm and those of the prime swarm he stocks up as many nucleus hives as he has queens and cells, giving each a brood-comb and queen or cell; the hives are placed as far from each other as convenient, and the entrances are close with grass. At night of the same day or next morning early he opens these up. To prevent inbreeding he thinks it of advantage to take these nuclei to outyards. In a discussion of the bee-keepers at Kleinbockenheim convention, it was pointed out that when constantly breeding in the above manner a swarming race of bees might result, and it was the general opinion that by using post-constructed cells over very young larva a better non-swarming race might be produced. However, it was conceded that greater care should be exercised in thus rearing queens.

As coming from Germany, very singular advice is given in Imkerschule, by Weggandt., as follows: In handling bees I want to caution the bee-keepers as to the use of the tobacco pipe or cigar. G. M. Doolittle, the celebrated American bee-keeper, calculates that frequent use of tobacco among the bees costs the bee-keeper about 25 per cent. of his honey.

It is reported by two German bee-keepers, one an editor of a bee-journal, that they have observed drones working on Phacelia and other blossoms. One drone was caught in the act and showed pollen packed on the legs. I omit the names of the observers to deliver them from an undue amount of correspondence of prospective purchasers of new strains of bees.

It is estimated in Centralblatt that there are 3,000 colonies of wild bees occupying trees, cavities, etc., in North America. The reporter, continuing, says that it is still one of the privileges and pleasures of farmers in America to hunt these bees and appropriate the honey they have stored. (The latter is correct; about the correctness of the former I entertain some doubts, i. e., I think the number of wild bees is much greater).

The Dickel theory ought by this time to be dead for good. A few months ago Professor Fleischmann, after some extensive investigations, declared it false. Lately Professor Weissmann and his helpers after studying the matter during the last three years, have arrived at the same conclusion.

Some years ago Professor Joseph Langer undertook a thorough study of the venom of the bee. Up to that time it was generally thought that the formic acid contained in it, though a number of able men did think that it must be an alkaloid, but nothing had been proven. Dr. Langer in the four years during which he experimented used about 120,000 bees to obtain the venom desired. The experiments were made on men and beasts, chiefly rabbits. Sometimes with the bee-stings, sometimes by introducing the venom under the skin with a syringe. The formic acid has a slight effect, as was proven by using it directly instead of venom. A poisonous substance, of the class called by chemists, alcaloids, is really the active principle of the bee-venom.

Other scientists have lately added to Dr. Langer's researches. The bee-venom does not proceed out of a single gland, but from several, so minute that they are almost impossible to separate. The one producing the alcaloid is extremely small and had so far escaped observation.

Among the 164 bee-keepers examined, 11 were not hurt much when stung, 126 became used to the stings, that is, became immune, and 21 did not become immune. Among the 164, 28 were at the beginning, exceedingly sensible and subject to serious sickness when badly stung.

As to the remedies, the only really useful are the permanganate of potash and chloroform. They should be introduced under the skin at the point stung, with hypodermic syringe, otherwise they have but little effect.

It is also stated that the venom of snakes, wasps, scorpions, etc., is of the same nature, so far as the alcaloid or active principle is concerned.

Aside from the pain and swelling, the effect—we might say the deadly effect—is on the nervous system, and, in cases of snake bite or excessive bee stinging, the nervous action ceases and the heart fails altogether. In spite of all that temperance writers may have said to the contrary, alcohol is the remedy indicated, as it stimulates the nervous system and enables it to counteract the effects of the alcaloid poison.

It would be interesting to know whether one immune to bee stings would be also immune to snake bites, but nobody seems to have experimented in that direction, undoubtedly for very good reasons.

SWITZERLAND.

M. Fenoillet is of the opinion that honey ripens in the hive within five or six days days.—B. Vater.

A year ago, or about, the bee-keeping world was almost startled by the supposed discovery of Dr. Lambotte that the much dreaded foul brood is nothing more or less than a form of putrefaction frequently met in Nature, especially in decayed milk or cream, wet bread and potatoes. In a word that foul brood was produced by the well-known bacillus mesentericus.

Recently two articles have appeared in the Revue Internationale showing that Dr. Lambotte was mistaken, and that the bacillus mesentericus producing putrefaction and the bacillus alvei which produces foul brood are two distinct beings, though so near alike in every respect that they cannot be distinquished except by exceptionally delicate means of investigation.

One of these articles is by Professor F. C. Harrison, of Guelph, (Ontario), and the other by Mr. Th. W. Cowan, the editor of the British Bee Journal. Both are well known and undoubtedly competent to handle the question. Their articles are too long to take place here. Those of the readers of this paper who would like to know more about Dr. Lambotte's ideas will find them explained in the January, 1903 number of this paper.

ITALY.

Mention is made in L'Apicoltore of two wasp nests found infected with foul brood. If wasps, bumblebees, wild bees of all sorts and perhaps other insects are liable to take the disease, we may understand why it is so difficult to get rid of it in certain localities.

Mr. Bauchenfels, the editor of L'Apicoltore, does not think that bees can carry their eggs. He says if it were so, when they are queenless, they would build queen cells and transfer some eggs to them rather than build around the egg, tearing down the adjacent cells. The same says that during the spring of the year, it is the brood that gives off most of the vapor expelled. When using hives with a glass window, the amount of water condensed upon the glass is almost in proportion to the amount of brood raised.

American Bee-Keeper.

MR. LOANE'S APIARY IN TASMANIA.

TASMANIA.

Kindred, Tasmania, Nov. 17, 1903.

Editor American Bee-Keeper: It was with great pleasure that I read your well-informed paper for September. The bee-keeping industry is not carried on extensively in our little island state, though it can, I feel sure, be made to pay well. Now that we are in the commonwealth, we have to compete with the continental states, where big yields of honey are often recorded. One bee-keeper in Victoria last season cleared $4,400.00 from 200 colonies; but that is unusual. We have no droughts to contend with here, and have mild winters. I have kept bees for nine years, and the best yield I had was in 1900, viz., 93 1-2 pounds per hive. (Average summer count.) I still hope to do better, as I have started an out-apiary, (see photo), in which I am using the Bolton hive. This hive has a devisible brood chamber, and the bodies, which are the same size as your "Ideal super," permit of inversion. Unlike the Heddon hive it is fitted with hanging frames.

I should like to know something about Mr. H. J. Shrock's hive protector mentioned in the September number of The American Bee-Keeper (page 215), but not described there, if it will not inconvenience you.

Yours sincerely,
N. E. Loane.

AUSTRALIA.

Harrison says that one warm night will accomplish the ripening of nectar. (The experience of the writer of this is, that honey is not usually ripe till sealed. Such honey extracted when sealed will keep years without materially deteriorating, while honey extracted when unsealed will quite commonly turn sour in course of time. We have just opened several cans of two and three years ago, which was fully sealed when extracted, and it is fine.)

ENGLAND.

BienenVater tells of a bee-keeper in England who fed his bees on sugar which contained sufficient poison to kill many of the young bees. The sugar was said to be imported from Germany.

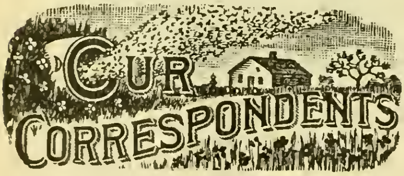
F. Greiner.

BELGIUM.

In July, 1901, a correspondent found in one of his colonies two queens, daughter and mother. He left both. The old one was almost hairless, with the abdomen very small. He often examined them and found them always together. Only the young one was laying. The first of August, 1902, over a year later, he found them for the first time separated, the old one too weak to follow the other. She died shortly after. (Le Rucher Belge.)

The Rucher Belge has an article (by M. Leger) concerning winter feeding, in which the use of honey is strongly advocated. But if honey cannot be had, sugar must be used. He advocates boiling the sugar until it becomes syrup and add tartaric acid. The boiling and the addition of tartaric acid have the effect of inverting (chemically) the sugar, making it thus similar to the honey itself and more easily digested by the bees. He disapproves of using vinegar instead of tartaric acid. Often the vinegar is adulterated. If pure it has little inverting power. Several other writers advise adding a little salt to the syrup.

Adrian Getaz.



Worcester, Mass., Jan. 11, 1904.

Mr. Editor: I presume you have looked many times among obituary notices for the death of the Worcester County Bee-Keepers' Association. This society was born April, 1900. It was not a very strong child and during that year it did not accomplish very much. In 1901 it gained a little, but in 1902 a decline set in which almost finished the weakling. In 1903 its strength was renewed, and when the year closed we found we had had a full year. No meeting was missed, and to close up the year we had as speaker Arthur C. Miller, of Providence, R. I. Many have become acquainted with Mr. Miller through the pages of The American Bee-Keeper, but to hear him speak is a much richer treat. That Mr. Miller is thoroughly posted upon all matters pertaining to bees was shown by the answer he gave to the many questions that were hurled at him from all sides.

We had a very large attendance, and it was "the voice of the multitude" we have Mr. Miller again.

Our Worcester County Association now has a membership of 59. We are endeavoring to work up a list of bee-keepers of the county, and when this is completed we hope it will have a tendency to increase our membership. We had only one outing during 1903, but that was so enjoyable it will not be soon forgotten.

Yours truly,
C. R. Russell.

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Black River, N. Y., Jan. 8, 1904.

Mr. Editor: We have formed a Jefferson County Bee-Keepers' Society with the following officers:

President, M. C. Harrington, Watertown.

1st Vice-President, A. A. French, Black River.

2nd Vice-President, Pearl Symonds, Rodman.

Secretary, Geo. B. Howe, Black River.

Treasurer, D. R. Hardy Watertown.

All bee-keepers are invited to join. Dues $1.00 per annum.

Very truly yours,
Geo. B. Howe, Sec.

◆

South Wales, N. Y. Dec. 11, 1903.

Editor Bee-Keeper: My report for last season, with 60 colonies, is as follows: 4,080 pounds white, and 710 pounds dark, extracted honey and increased to 98. I distribute every copy of the Bee-Keeper that comes to me, among bee-keeping acquaintances.

Respectfully yours,
J. W. Tefft.

◆

I greatly enjoy The American Bee-Keeper, and think it the equal, if not superior to the high-priced journals. I for one, cannot afford to be without it. —L. B. Smith.

PUBLISHED MONTHLY
THE W. T. FALCONER MANFG. Co.,
PROPRIETORS.
H. E. HILL, - EDITOR,
FORT PIERCE, FLA.

Terms.

Fifty cents a year in advance; 2 copies 85 cents; 3 copies $1.20; all to be sent to one postoffice.

Postage prepaid in the United States and Canada; 10 cents extra to all countries in the postal union, and 20 cents extra to all other countries.

Advertising Rates.

Fifteen cents per line, 9 words; $2.00 per inch. Five per cent. discount for two isertions; seven per cent. for three insertions; twenty per cent. for twelve insertions.

Advertisements must be received on or before the 15th of each month to insure insertion the month following.

Matters relating to business may be addressed to
THE AMERICAN BEE-KEEPER,
Fort Pierce, Fla., or Jamestown, N. Y.

Articles for publication or letters exclusively for the editorial department should be addressed to the Florida office.

Subscribers receiving their paper in blue wrapper will know that their subscription expires with this number. We hope that you will not delay favoring us with a renewal.

A red wrapper on your paper indicates that you owe for your subscription. Please give the matter your early attention.

Editorial

The American Bee-Keeper is always in the market to buy for cash, good articles treating upon apiarian subjects. Illustrated material is especially desired, and we should be pleased to have the privilege of examining manuscripts from the pens of our readers at all times.

At this writing, January 19, an abundance of pollen and some honey are coming in, in the South Florida apiary, bearing evidence of the approach of another honey season, which always carries to the apiarist a fresh supply of enthusiasm and good resolutions.

We are entering upon the last month of winter, and soon the flowers of spring will usher in the season of 1904. In many instances success will depend upon the scope and thoroughness of our plans now formulated. It's a good time to think, and think seriously.

Cuba is said to have, this year, the first failure of the honey crop within the history of bee culture upon the island. However, the reports we have received were issued rather early. It is possible that more favorable conditions may develop later in the season, and afford a degree of relief to the disappointed multitude of bee-keepers.

El Apicultor is a new bee journal published at Barcelona, Spain, under the management of Miguel Pons Fabregues. El Apicultor, we believe, is to succeed El Colmenero Espanol, the editor of which, D. E. Mercader-Belloch, died on December 9th last, at the age of 73 years. The new journal makes a very creditable and promising start.

We are in receipt of a copy of the annual report of the general manager of the National Bee-Keepers' Association for 1903. The compilation presents a resume of the cases handled during the year—in all, 35—the results bearing evidenc of the efficiency of organized efforts in this direction. The list of members approximates 1,700, and the treasury balance is $1,115.08.

The Bee-Keeper acknowledges with thanks the receipt of a number of photographs from the following subscribers: Messrs. John M. Hooker, Dr. O. M. Blanton and N. E. Loane. The collection sent by the former, comprises nearly 150 interesting subjects, from the British Isles, and are well executed, indeed. Those sent by Mr. Loane represent the scenic beauties of far-off Tasmania; while Dr. Blanton's contributions are characteristic of our own country. We deeply appreciate these evidences of kind regard.

The Southland Queen, of Texas, warns its readers that when bulk comb honey is candied, the market price falls to the level of extracted quotations, and advises that this class of honey should be allowed to remain upon the hive until orders for delivery are in. Such being the case, the rosy hue which appeared upon the face of this recent departure in honey production has a tendency to fade into a more sombre shade; for it is impracticable to restore bulk comb honey to its former more desirable condition, and the thought of marketing the wax contained at about one-sixth its market value is not pleasant.

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The editor desires to say to readers of The Bee-Keeper that if those who wish the paper discontinued at the expiration of the time for which it is paid, will drop us a postal card to that effect, their request will have prompt and careful attention. With the exception of a few sample copies mailed to bee-keepers not already subscribers, we never mail a single copy to anyone who has not paid in advance or else has subscribed for an indefinite period. New subscribers are constantly coming in, and it is our aim to so place every edition that each copy will fall into the hands of someone expecting it, and who has made or will make payment in advance at his earliest convenience.

Must Honey "Take a Back Seat."

Considerable alarm is manifested in certain quarters at the possible result of a molasses advertisement now becoming familiar everywhere, which claims superiority over honey. "Better than honey for less money," makes a catchy headline that will divert thousands of dollars from the pockets of honey producers to those whose enterprise and business sagacity prompts them to make such generous use of magazine space.

This is essentially an age of publicity, and business success is markedly proportionate to the extent and quality of publicity employed by the promoters of any enterprise. Bee-keepers have, obviously, failed to appreciate the possibilities which their business affords, through united effort in marketing and the utilization of modern methods as applied to publicity. The competitor's goods may be unwholesome and unpalatable, as compared with honey, yet his persistent advertising will take them into thousands of homes where pure honey is unknown, and the consumer, by reason of the wily advertisement, will feel that in providing such a commodity for household use he is actually performing a sacred duty to those for whom he provides. Thus the consumption goes on, and the manufacturer continues to grow wealthy. Not because of any special merit of the commodity, but because of shrewd advertising.

The bee-keeper's product is unquestionably the most wholesome and delicious of table sweets. Does he not recognize in the advertising methods of the cheap molasses man a lesson worthy of application to his own business?

Since the foregoing was written, The Bee-Keeper has received a short article from "Swarthmore," which is presented in this number, bearing upon the same subject. It should be "learned by heart" by every bee-keeper in the land who is interested in the profitable development of our pursuit.

Death of Captain Hetherington.

Capt. J. E. Hetherington, who has borne the distinction of being the most extensive bee-keeper in the world, died at his home in Cherry Valley, New York, December 31, 1903. This meagre announcement comes from Capt. Hetherington's son, Hubert B. Hetherington, of Cherry Valley, and The Bee-Keeper extends to the bereaved family its sincere condolence. Capt. Hetherington would have reached his 64th birthday on January 7th.

The National Election.

The official report af the December elections of the National Bee-Keepers' Association will be found in this number of The Bee-Keeper. The popularity of General Manager France is indeed strongly attested by the result of this contest, he having received 518 of the total 552 votes cast.

The widely scattered vote for directors will, doubtless, tend to revive interest in the matter of formally nominating candidates for this office.

A Dread Enemy of the Florida Bee.

In this number of The Bee-Keeper C. S. Harris tells something of the large red ant which terrorizes the bees and annoys the bee-keeper of Florida. Though we have had considerable to say in regard to this destroyer in the past, our readers may find interest in the picture also presented in this number, as it shows a worker bee and fighting ant engaged in mortal combat, taken from life by the editor of The Bee-Keeper. This nocturnal marauder is known locally as the "bulldog ant," and the appellation appears to have been suitably chosen, as it attacks its victims with true bulldog visciousness, savagely biting off wings and legs of the terrified workers, or crushing between its powerful jaws any other extremity with which they come in contact. In the illustration is shown a conflict in which a portion of the head and the compound eye of the bee were mashed and partly torn away.

It is no extraordinary event in the South Florida apiary to find with the coming of the day a writhing mass of dismembered bodies of bees, drabbled in honey, where stood the previous evening a prosperous nucleus or promising colony of valuable stock.

What are "Legitimate Lines of Work?"

Alfred Atherton, in the American Bee Journal, says: "When I was preparing my honey for market this fall. if I could have had some sort of stamp bearing the letters, 'N. B.-K. A.,' perhaps it might give the commission man a little more respect for the rights of the shipper." Editor York comments upon the suggestion as follows: "We should very strongly oppose the use of such a stamp until some sort of provision is made to prevent frauds getting into the membership of the association. Unless such a stamp were rigidly safe-guarded, it would be of no value to any one. The fact is, the association is not organized for the purpose of doing all kinds of business. We think it has enough to do when it simply keeps within its legitimate lines of work."

The indiscriminate issuing of such stamps to the membership of the National Association would, of course, be imprudent, as suggested by Mr. York. However, when it comes to defining the "legitimate lines of work" of the National Association a broader proposition is involved. According to its constitution the primary object of the Association "shall be to promote the interests of bee-keepers." It would therefore appear that the scope of work heretofore undertaken by the association might be materially expanded and yet adhere strictly to constitutional limits.

If the interests of the members would be "promoted" by the use of a mark authorized by the Association, is it not possible that these interests might be served without jeopardizing the honor or prestige of the Association? Specific requirements could be formulated by the association, and the filing of an adequate bond therewith, would, it would seem, provide the necessary safeguard.

Such an extension of the association's work could be made at slight expense and, perhaps, greatly to the advantage of its membership.

Treatment of Foul Brood.

Some time ago The Bee-Keeper announced the receipt of an article from C. H. W. Weber treating very thoroughly upon the subject of curing foul brood with formalin gas. Later we were requested to defer publication of the article until further instructions. The following, recently received from Mr. Weber, will explain the reasons for delay; while the latest developments in this line will be found fully discussed elsewhere in this number:

"When stating last spring that I had been successful in killing the foul brood bacillus and spores by fumigation of formaldehyde, I felt quite sure of what I claimed, and will bring forward one fact: Mr. H. Shaffer, President of the Hamilton County Bee-Keepers Association had been troubled with the disease, had declared himself willing to furnish me with foul broody combs to experiment with. He brought in all the combs of an effected colony. These I fumigated in a box about 20 feet square, and then took two of the frames on which the disease was mostly developed to the University of Cincinnati, for Dr. Guyer to see whether he could make the bacillus and spores grow again. Dr. Guyer made several tests and pronounced the germ killed.

To be quite sure, and to see whether the doctor knew what he was talking about, Mr. Shaffer brought in one other diseased foul broody frame, this one I did not fumigate, and it was cultivated to develop the disease by Dr. Guyer. After thorough testing the doctor declared that this last one flourished with living bacillus and spores. The results of the test by Dr. Guyer and the ones I had made on colonies the fall before and upon which at that time, no signs of the disease could be noticed, made me express myself as I did, that fumes of formaldehyde would kill the foul brood bacillus and spores, and it to be a sure cure of the disease. Then later on, when it had become warm, somebody came in and reported the disease had shown up again. I went right along with the party and I convinced myself he had told the truth. The next day I went out to H. Shaffer, and had to learn there that the disease had shown up again. Some other cases, which I had treated resulted in perfect success, and some not. The result of the experiment stunned me. At that time I had no explanation to offer as to what caused the re-appearance. Trying to learn, and to find an explanation, I commenced to hunt and read a good many discussions in German papers, and what I learned I wrote down in the article. It seems to me that what is in this article clears up a good many points as to why the disease so easily reappears."

BEE NOTES.

By H. G. Sammis.

A FINE QUEEN for breeding purposes should not be allowed to expend her force by too much egg-laying, but should be kept in a nucleus and only allowed to keep that up moderately strong.

When hiving swarms on hot days if the bees cluster on front of the hive and hesitate to go in, do not hurry them too much, they are excited and hot and want plenty of air. Raise up the front of the hive an inch or two and shade them with a board, and when they get cooled off they will go in all right. Always make it comfortable for swarms; it is the only holiday they take in the whole year. In this locality the linden or basswood honey flow comes to an end about July 12th. Sumac continues to bloom about a week longer, after which we have a honey dearth until about August 10th, when boneset and goldenrod begin to yield nectar. Last year during this interval of scarcity I left on the hive some supers which contained sections in all stages of completion. The result was the sections were all badly punctured, the bees carrying the honey down into the brood nest again, using it in rearing brood. I mention this fact for the benefit of those who may be similarly situated, and I advise that all sections be taken off the hives after the summer honey flow has ended, and all partly filled ones be replaced in time to catch the fall flow, providing, of course, you are fortunate enough to have one. After one has produced a case of nice, fancy grade honey it is important to know how to take it from the hive and not have the bees puncture the nice white cappings, which is often done, and the honey is then rated as second-grade. When ready to take off honey, approach the hive and with the smoker well going, send in a few puffs of smoke at the entrance, then raise the back end of the super and puff in a little more smoke very gently. Do not frighten the bees by rough handling or jarring the hive in any way, for then they will run to the boxes and puncture the cappings and fill themselves with honey. After raising the super about six inches on the back end with one hand, slip the bee escape under it with the other hand and adjust everything in its place. The bees will all make their exit through the escape in the board one by one, and your super will be ready to come off the next day. It is best to put on escapes towards evening, so the bees in the super will not be too hot. Now if you have been judicious and expeditious in all your manipulations you may carry off your super of nice comb honey the next morning without a puncture or a scratch.

The cheapest and best way to protect the bees in winter is by using good chaff hives.

A good way to keep the extra combs is to hang them in a rack in a dry room.

Centreport, N. Y., Nov. 21, 1903.

HONEY AND BEESWAX MARKET.

WASHINGTON GRADING RULES

Fancy: All sections to be well filled, combs straight, of even thickness and firmly attached to all four sides; both wood and comb unsoiled by travel sain or otherwise; all the cells sealed except the row of cells next the wood.

No. 1: All sections well filled, but combs uneven or crooked, detached at the bottom, or with but few cells unsealed; both wood and comb unsoiled by travel stain on otherwise.

In addition to this the honey is to be classified according to color, using the terms white, amber and dark. That is, there will be "Fancy white," "No. 1 dark," etc.

HONEY MARKET.

Cincinnati, Jan. 25.—The demand for honey shows little life at the present moment. Have an ample supply, although we look for a revival of trade in the near future in this country. We are selling amber extracted in barrels, at 5 1-4 to 6c. White clover 6 1-2 to 8c. according to quality. Fancy comb honey selling slow at 14 to 15c. Beeswax good demand at 30c.—Fred W. Muth Co.

New York, Jan. 8.—The supply of honey is good with limited demand. We quote, comb, white, 13 to 14c., amber, 11c., dark, 10c., extracted, 5 to 6 1-2c. Beeswax in good demand, with light supply at 28 to 29c.—Hildreth & Segelkin.

Boston, Jan. 11.—There is but little new to note in our honey market. Stocks are ample and prices as follows: Fancy white, 16c., A No. 1, 15c., No. 1, 14c., extracted, 6 to 8c., according to quality.—Blake, Scott & Co.

Kansas City, Mo., Jan. 9,—The demand for comb honey is fair. Demand for extracted, light. We quote, $2.25 to $2.60 per case of 24 sections. Extracted 6 to 7 1-2c. per pound. Beeswax is in good demand at 25 to 28c. We do not look for much improvement in prices before February, if then.—C. C. Clemons & Co.

Chicago, Jan. 8.—The new year opens with a quiet trade in honey, retailers usually having a supply from the stock laid in to make a good show at the holiday trade. Prices are without essential change in No. 1 to fancy comb, which brings about 13c. Very little doing in off grades at from one to three cents less. Extracted white grades bring from 6c. to 7c., according to flavor and other qualities; ambers about 1c. less. Especially weak are those lacking in flavor and body. Beeswax steady at 28c. to 30c.—R. A. Burnett & Co.

Cent-a-Word Column.

The rate is uniformly one cent for each word, each month; no advertisement however small will be accepted for less than twenty cents, and must be paid in advance. Count the words and remit with order accordingly.

FOR SALE—Farms, both large and small; also, houses and lots, everywhere. Send for free bulletins. W. H. Burke, Clifton Springs, N. Y. 1-3

WANTED—To exchange six-month trial subscription to The American Bee-Keeper for 20 cents in postage stamps. Address, Bee-Keeper, Falconer, N. Y.

FOR SALE—A Hawkeye, Jr. Camera Complete. Uses both film and plates. Cost $8.00, will sell with leather case for $3.50 cash. Address Empire Washer Co., Falconer, N. Y.

A TANDEM BICYCLE (for man and lady) cost $150, in first-class condition, was built to order for the owner. Tires new. Will sell for $25 cash. Satisfaction guaranteed. Address J. Clayborne Merrill, 130 Lakeview ave., Jamestown, N. Y.

AGENTS WANTED to sell advertising novelties, good commission allowed. Send for catalogue and terms. American Manufacturing Concern, Jamestown, N Y.

"We have an awful appetite for orders."
THE W. T. FALCONER MFG., CO.,
Bee-keepers' Supplies Jamestown, N. Y.
Send us your name and address for a catalogue.

The more you advertise your business the more business you will have to advertise.—Printers Ink.

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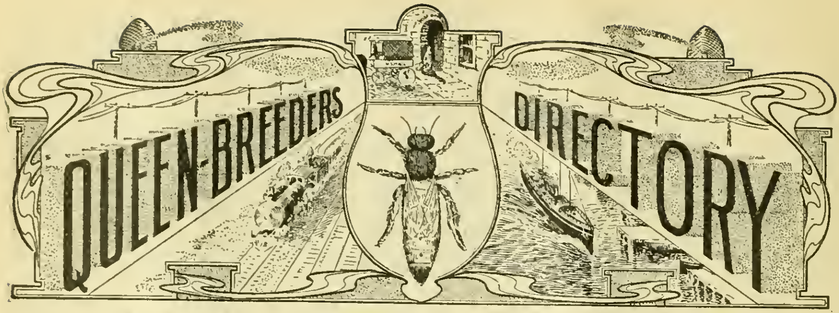
It is bright and up-to-date. Tells all about Southern Home Life. It is full of fine engravings of grand scenery, buildings and famous people. Send at once. 10c. a year postpaid anywhere in the U. S., Canada and Mexico. 3 years 50c. Or, clubs of 6 names 50c., 12 for $1. Send us a club. Money back if not delighted. Stamps taken. Cut this out. Send today.

THE DIXIE HOME,
Birmingham, Ala.

When writing, mention the Am. BeeKeeper.

The subscription price of the ROCKY MOUNTAIN BEE JOURNAL is 50 cents. We will send it with THE BEE-KEEPER one year for only 75 cents.



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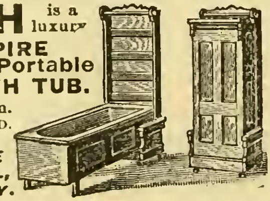

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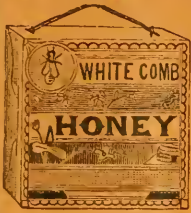

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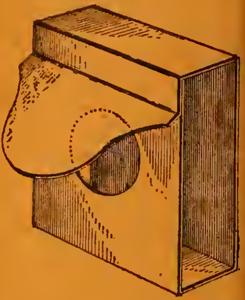

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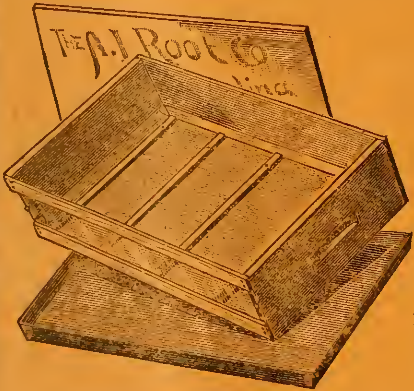

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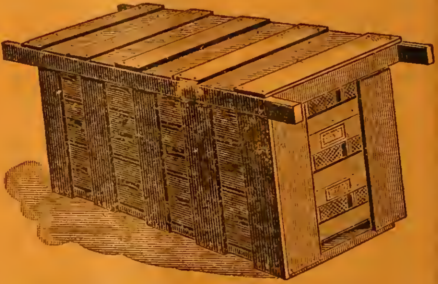

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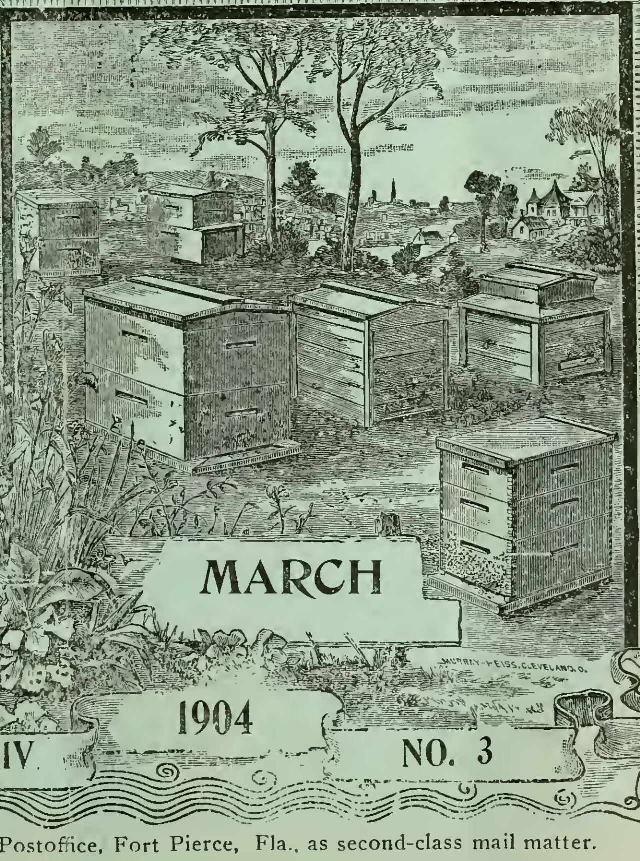
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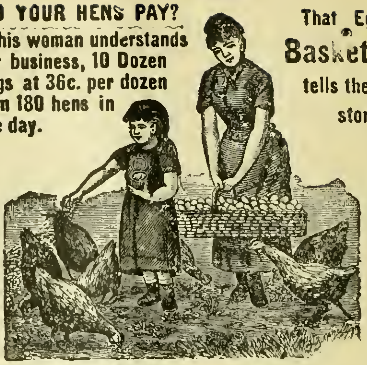

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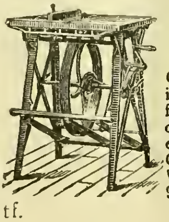

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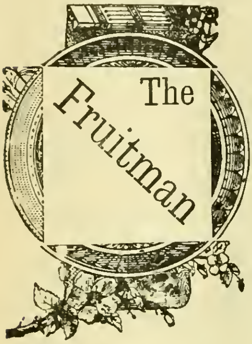

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THE AMERICAN BEE-KEEPER

Vol. XIV MARCH, 1904. No. 3

A NEW YORK APIARY.

An Apiarist Tells of His Experience and Methods in Treating Foul Brood. Other Information.

BY P. W. STAHLMAN.

MR. HILL, Dear Sir:—When I read The Bee-Keeper, which comes to me regularly, I cannot help being interested and benefited by reading the articles which it contains. I herewith send you a photo of the apiary of F. G. Hinman, of Gallupville, N. Y., of which I was the apiarist this season—1903. The person standing is the proprietor, a man of good business qualities, a man of his word, and one that admires a tasty-looking apiary, and every part of it kept up in order. The person sitting on the hive is the writer. You will notice I am holding a famous rabbit dog, but unfortunately the little fellow turned his head just as the picture was taken and therefore is no good.

As you will see, the apiary is located in an apple orchard on quite level ground. The hives are all in rows, which permits the use of a lawn mower. They are of the L size and the apiary is run for comb honey principally; but if there are any weak colonies they are run for extracted

When I say that bees in this vicinity are kept on business principles you may think I may be throwing a hint that only bees here are run right. But let me tell you when a man keeps bees where the ruins of foul brood have existed for six years (and still exists), he must do things pretty near right or the result will be failure every time. The yard in view has been diseased quite badly, but has been rid of the disease and the whole apiary of 126 colonies are in winter quarters in good shape. We have tried all sorts of cures for foul brood, the formaldehyde cure included, and as to formaldehyde curing foul brood to perfection, I am not ready to say that it will. We have made tests all along this line, giving double doses and every other way. To cure is easy, but to stay cured is another thing not quite so easy. We have experimented to our satisfaction, taking all the brood and honey from an infected colony and fumigating for 1½ hours, then air the combs well and return to the same bees, which resulted in doing much good, but did not kill all of the germs, as a little of the disease remained during the entire season. We also treated combs of honey (sealed and unsealed) in the same manner and filled a hive full of such combs and put a swarm on those combs with good results. No signs of disease appeared during the entire season. But the only plan in which we have great confidence is to tier the infected combs of brood over a colony that is slightly affected (but quite strong in bees) and keep the queen out of all the combs above by means of a queen excluder, and after the good brood has hatched out and the bees have cleaned out the dried out larvae (which they will do if the bees are good Italians), and the combs have been filled by bees with honey and then extracted once or twice. Then let the bees clean up the combs so as to have them dry and then apply gas good and strong. We are quite sure a cure has been effected in this way and these combs may be used without fear. I am also sure that by shaking the bees just at night when all have ceased to fly and using a large newspaper to shake the bees on, after the bees are all in the hive take the paper with what dead bees (and drops of honey if there be any) and burn at once, will make doubly sure work of it.

I prefer a box hive to shake the bees as there are no frames to bother with and after they have been in this box for three days then get the frame hive ready and at night (or rather in the evening late) take the box with the treated bees without smoke, lift it carefully and at one good jar dislodge all the bees in front of the hive they are to occupy. In most cases the bees will have a few combs built during the three days, and if any are jarred out in jarring the bees, make quick work in getting these little combs away from the bees, as there may be a little honey in them, which they should not be allowed to get.

It will be understood by taking these bees in the box and quietly and quickly jarring them out, they cannot fill themselves with honey as they can if smoked. Of course they will be quite cross now, and you will want to step back; and if they still show war you can take to your heels or use your smoker, as the bees are now away from the honey.

One of the greatest points in curing the bees is to get along with them just as quietly as possible, and have their location so distinctly marked in some way that they will not mix with other colonies. All old queens should be replaced with young ones and all black bees and queens gotten rid of, also all hybrids done away with the greatest of speed.

MR. HINMAN'S APIARY.

I emphatically and unhesitatingly say you cannot get along with foul brood by having a lot of black and hybrid bees. At least, not in my locality.

I rear my own queens, and then I know what I have. I have little faith in paying one dollar each for a lot of cull queens. I much prefer to rear them myself, then I know just what to look for—a pretty good lot of queens, I am sure. As regards hives, each has its friends and enemies. I may some time in future send you a photo of my queen rearing outfit with article concerning it.

Gallupville, N. Y., Dec. 21, 1903.

CHUNK HONEY.

Four-Piece Sections versus One-Piece. T-Supers versus Wide-Frame Supers.

By F. Greiner.

MR. EDITOR: The production of chunk honey has become quite a hobby, or perhaps business, with the bee-keepers in Texas, I suppose.

If we and all other bee-keepers would go to producing that kind of honey, the section problem would be solved, causing perhaps half the supply manufacturers to shut down. For the consuming public possibly this might be a good thing, providing we could educate the people to accept chunk-honey in place of section honey.

From private customers in my vicinity I have more call for chunk-honey (without the extracted article being poured over it) than for any other kind. Furthermore I can with advantage produce it. With the regular stock of chunk-honey as produced in Texas there is a great drawback connected, which is much more serious than it is with the extracted kind, viz: the comb honey, with the extracted poured on it, becomes one solid mass as soon as the season advances, and cannot well be liquefied again. It is not probable that this difficulty will be overcome in the near future and for this reason, if no other, section honey will be in demand for a long while.

The consumers will care nothing whether the honey he eats was produced in four-piece or in folding sections; that will be a matter of convenience for the producer. We have used the four-piece sections before the one-piece sections came into fashion, and have not had any reason to be sorry for adopting the folding kind. It is very true, sometimes a batch of sections does not fold true. When the grooves are not cut right, sections cannot fold true and cannot be made to stay square without being held in shape until filled. Why a four-piece section should not come true I fail to see, as it will easily conform to any shape, diamond or square. In fact the four-piece sections will solve the problem of sections coming square every time. Even with the T-super the four-piece section would work nicely as far as keeping its shape, while the one-piece section, (if it does not hold square) can make us lots of trouble. When it comes to taking the filled sections from T-supers the difficulty we have experienced was always with the dovetailed corner of our one-piece sections. The bottom of section is generally so glued down to the T, and in the attempt to separate the two the bottom would pull off at the dovetailed corner and break the bottom row of cells. If such is the case with a section that has but one dovetailed corner, will not our trouble be multiplied with a section having four such corners? By way of explanation would say, that it has been our practice to so place sections in the supers that the dovetailed corner is down. We do not wish to have it show when the honey is crated. We followed the same rule when filling our T-supers, of which, fortunately, we have only 40 in use, and these we do not use except on a pinch, when all others are used up. We have experienced another difficulty with the T-super, and in this also the dovetailed corners, because of their being sharper or coming to a sharper corner than the others, increased this viz: When sliding the sections into their places between the T-rests the corners of sections would catch on them. A section pulled out of the center of a filled T-super can be replaced only with difficulty on this account. While speaking of the undesirable features of the T-super I want to mention this other. We have to be very careful how we handle them when ready for the bees. When one accidentally or carelessly sets a T-super down on some rough surface, perhaps down into the grass by the shade of a hive, and he finds a dozen or more sections pushed up partly—how trying it is for one in the hurry of the work to get that super back in shape. Even when a T-super is filled with honey it must be handled with greater care than any other one on account of sections not being protected from the bottom.

As to the one-piece section getting glued up worse than the four-piece section, this is a most insignificant matter. If Mr. Heddon will try no-bee-way sections he will experience no trouble in their becoming glued up seriously, providing he uses wide-frame supers, which is the only super I consider worth having in a large bee yard where time is considered money. Mr. Heddon also prefers a section of hard wood. I have suggested soft maple as a suitable timber for the purpose, some years ago. I was prompted to do so because I felt we ought to save the linden for bee pasturage. Of course hard timber does not soil as easily as soft basswood and water does not soak into hard wood easily, but we have no occasion to wash our sections in order to get them clean. So far as that is concerned, basswood answers the purpose very well. The principal gluing always occurs along the top-bars of our wide frames where the bottom bars sag a little, thus forming a gap between the tops of sections and the top-bar of the wide frames. For this reason I would now make bottom-bars of frames fully as heavy as top-bars, or make the frames shorter so as to take only three sections instead of four. The gluing with one-piece sections could not possibly be any worse than with four-piece sections, and the soiling would be slight whether hard wood or soft wood was used for sections. The reason why there is so much difference between bee-keepers on the same subjects may be attributed to the fact that the notions of different men are unlike. Some will get along with little imperfections in a certain line, others would not; and then again other imperfections they will make a big fuss over the others would count naught. So it happens that the majority of bee-keepers put up with the Italian bee although they well know their comb honey is not to be compared with that of the black or Carniolan bee. As G. M. Doolittle says: "The honey the Italians make is 'good enough,'" and so I might say, soft wood sections are good enough. As to one- and four-sections, I would give a little more for the former rather than use latter, but of course if the former cannot be obtained I would not hesitate to use the latter.

Naples, N. Y., Dec. 15, 1903.

MANIPULATION.

Variable Results from Different Methods and Races of Bees. Characteristics Viewed from the Standpoint of Sentiment and Science.

By Arthur C. Miller.

IT WAS with some surprise that I read Dr. Blanton's comments in the January Bee-Keeper on the Cyprian bees. In my own apiaries I find them most tractable when properly handled. I say "properly handled" because they do resent the treatment generally given to bees. I handle Cyprians as freely as Carniolans, do it bare faced and bare handed and in fact on account of their tractability and beauty use them for show bees and do not hesitate to show them to visitors even when the latter are without veil and gloves.

But this article is not to extol the merits of any race or strain of bees but to treat of causes of trouble in handling bees. Do any two persons handle bees the same? I almost believe not. With smoker belching clouds of pungent, suffocating vapor, one operator will assail the hive like a Chinese fanatic demolishing devils. The poor bees are driven helter-skelter first from the entrance and then from the tops of the frames. By the time the first frame is out the bees are in a tremendous furor, rushing to and fro in a vain endeavor to escape the all-pervading smoke. And the operator wonders why it is so hard to find the queen!

Try such treatment with Cyprians and the poor misguided operator will go onto the retired list for many a day. Try it with "Blacks" and they will desert the hive and scatter to the four winds—till some more convenient season. With Syrians it means a fight to a finish. With most Italians and with Carniolans it is complete subjugation up to a point, beyond which they fight. With all it is a grevious mistake. Another operator will go to the other extreme and fail to use smoke at the critical periods. Then some strike the happy medium, have a well charged, well burning smoker, use it just as little as possible and yet enough, and control the bees readily and perfectly. One man will be filled with senseless fear, another will view his work rationally, study and know the vagaries of his strain of bees and act accordingly, for different strains and races react differently to the stimulus of smoke.

It is the currently accepted belief that smoke "frightens" bees. It is doubtful if bees "fear" anything. It is probable that smoke simply acts as a nerve excitant, producing disturbing sensations, which in turn react and cause the bees to gorge with honey or to precipitately flee. I question whether the taking of food under such circumstances is anything more than a nervous reaction. There is nothing but sentiment to suggest that on the bees' part there is forethought of loss of home or food. When smoked excessively the bee fights; "sacrificing herself for the sake of home and sisters" the legend runs. But 'tis hardly true. A point has been reached in nerve excitation where the sting mechanism is stimulated. As all parts work in unison so must the bee fly towards that which excites the nerves of the eyes and on striking the object the rest of the actions occur in regular sequence.

The bee possesses a highly developed nervous system but its power of associative memory is decidedly limited. Beyond finding its way to the source of nectar or food supply and back to its domicile and noticing any marked change in the appearance or surroundings thereof, I have failed to note any evidence of a "mind" in bees. Every other function can be explained perfectly as reactions to excitants or nerve stimuli.

To revert to sting action. The application of smoke or heat can be carried to a point where the bee doubles up until it stings itself, or of when forced almost to this, the abdomen be severed from the thorax, the anterior part of the body still continues to assail and cling as before, while the posterior part curves and the sting darts out and in as if the abdomen was still connected with the thorax.

Someone may ask me to reconcile these views with the action of the "guards" which dart so readily from the hive entrance at any moving object. The movements excite (set in action) the optic nerves, which in turn react on the organs of flight. The bee approaches the object and if the latter causes continued or increased nerve stimulation, either through the organs of sight, smell, hearing or touch, the sequence is assault.

Why do bees feed the larvae? They have to. They cannot help themselves.

This article is but the merest allusion to the laws underlying all life. With man and the higher animals associative memory and reasoning enter into the problem but with the lower orders movements are merely the results of various stimuli (such as heat, light, electricity, gravity, touch, etc.) acting on living tissues.

When we can rid ourselves of the old beliefs of the reasoning power of bees, of a lot of unknown but supposedly marvelous and complex laws, and go to searching for the stimuli behind each action we may then hope for a speedy solution of the swarming problem and similar perplexing questions—and not before.

Providence, R. I., Jan. 23, 1904.

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In concluding a recent letter, the editor of one of the leading foreign bee journals says: "Allow me to add with what real pleasure I study your most excellent American Bee-Keeper every month. You have good reason to be proud of your publication, so full it is of valuable teaching, so cleverly edited, so attractive in form, so fresh and inspiriting from month to month."

The word honeymoon comes to us from the ancients, among whom it was the custom to drink diluted honey for thirty days or a moon's age, after a wedding feast.—Ex.

Have you noticed our special offer on another page? An excellent agricultural journal free to our readers.

FORMALIN.

A Method of Its Application Suggested Within a Hive Occupied by the Bees.

By J. E. Johnson.

THE question of foul brood is certainly an important one to all who keep bees; and any information upon the subject ought to be welcomed by every up-to-date beekeeper. This matter of applying gas to a colony of live bees to kill the germs and spores of disease and not injure the bees or hinder them from work means much if it can be done successfully. Without giving the matter much serious thought, or without a full understanding of germ life, or the real cause of why or how germs are killed by gas, it would seem impossible, but I am very confident that it is not only possible but practicable. Let us then first see if we fully understand what formalin or or formaldehyde is.

Formaldehyde is a gas. This gas can be mixed with water only to an extent of 40 per cent. This solution is then called formalin or formaldehyde solution. A formaldehyde solution may be of 10, 20 or 40 per cent. strength but it is properly called formalin, only when 40 per cent. strength. The gas may be driven from this solution by heat or it may be applied cold, and as the water evaporates the gas is set free.

There are only two gases that are good germacides. The gas from burning sulphur will unite with the water of the air to produce sulphurous acid, hence it is a germacide. The gas for--maldehyde is a germacide because when in the air it combines with free oxygen to produce formic acid. So in either case it is the acid that kills germs, not the gas at all. Many think that because sulphurous gas is deadly to all animal life formaldehyde must necessarily be the same; but such is not the case. One god long whiff of sulphurous gas may kill any animal because it fills the lungs and stays there, thus cutting off all oxygen. The longest man can live without the oxygen of the air is five minutes, hence death would result from want of oxygen. But formaldehyde is of a different nature. It can be inhaled along with the air without serious injury, that is to quite an extent. The injury would be principally irritation from the acid. In a medical college of this state this matter was tested. By way of experiment a dog was placed in a room and formaldehyde was applied quite strong for 24 hours. The dog was not injured except nose, eyes, mouth and lungs were much irritated but soon recovered so as to eat a good meal. Now if we should apply a 40 per cent. solution of formaldehyde on a piece of cotton and place on the bottom board of a hive containing live bees, protected with wire screen so that bees would not come in direct contact with the solution (it would burn them), this gas would be gradually set free and would combine with the air in all parts of the hive even through the brood, as brood contains air whether live or dead. Hence it would be effective. Now spores are hard to kill when dry, but in this case all spores would be in a condition of rapid germination and would be very much easier killed than when combs alone were fumigated. The spores are the seeds and when in the right pabulum of proper temperature and moisture, will germinate, somewhat similar to other seeds; and when in this stage of development they are easily killed by any good bactericide, hence the great advantage of this mode of treatment, as bees would furnish the necessary heat, moisture, etc.

However, if a 40 per cent. solution be thus applied the bees would suffer and would probably desert the hive unless given lots of air above and below brood chamber, but if a weaker solution be applied it would no doubt be as effective and less offensive to the bees. As an illustration, one ounce of 20 per cent. solution would contain as much gas, and would yield as much acid as one-half ounce of 40 per cent. solution, only it would be slower. Also two ounces of 10 per cent. solution would equal the same. Anyone trying this method should experiment in a small way to see how strong a gas the bees would put up with. Raise cover a trifle to create a draught. Weather should be warm, and soultion be applied frequently for some time so as to have a continuous forming of acid, probably every two or three days for 10 or 15 days would be right. The strength of solution to be used would depend on the weather and the amount of ventilation given, but I would suggest that a 10 or 20 per cent. solution be used. Ten per cent would be best to begin with. Ask a good physician to get the solution for you, then you will get what you order. Get a 40 per cent solution and reduce it by adding water. The solution should be handled with care. Any good physician can give you further information as to how to handle it.

There are such things as disease germs of animal life but they belong to a different family. All bacteria, ferments and fungi are of vegetable life and should be treated as plants. They neither live nor die from the same causes as animals. Some preparations will kill both animal and vegetable life but usually not from the same cause or in the same way.

Williamsfield, Ill., Feb. 1, 1904.

SECTIONAL HIVES.

As to Their Influence Upon the Strength of Colonies, etc. A Friendly Criticism of Mr. McNeal's Position in the Matter.

By E. F. Atwater.

"WITH the added experience of another honey-harvest I reaffirm my belief in the efficiency of large non-sectional brood-chamber hives," says W. W. McNeil in October Bee-Keeper.

Right you are, for many localities, Mr. McNeal, about the large hives, but hold on, that "non-sectional" part I am not so sure about.

"Repeated failure of this hive (sectional) to give that numerical strength of colony early in the season that is so necessary to success." How, oh, how did it happen so? My sectional brood chambers do not "fail" here.

In fact there is less waste space in the Heddon sectional hive than in the standard L. However, waste space at ends of frames has little to do with it, one way or another. The vital point is in the amount of waste space between the combs in one case and the set of combs above or below. This must be reduced to a minimum to secure the best results.

Mr. McNeal, tell us please, the exact thickness of the top-bars in your sectional hives and the exact thickness of the bottom bars. Also were your combs built down to the bottom bars? With thick top bars, combs not built down to bottom bars, and rather thick bottom bars I should expect bad results. I fail to see where "climatic condition" or "floral surroundings" have anything to do with the case.

J. B. Hall uses the sectional hive in Ontario, L. Stachelhausen uses it in Texas.

"Recourse to the sugar barrel is the real life of the method." How so? It is not so with me.

In extracting our thick, gummy honey, new combs, full depth, built on foundation are often torn and damaged, while the shallow combs are unharmed. Then what perfect combs we get in the shallow frames, every cell available for worker brood, and no sagging.

"The big colonies in the big hives are able to take care of themselves to such an extent that the real need of handling the brood combs is reduced to a minimum."

True, again, and just as true of my big colonies in my big sectional brood chamber hives, and when I do want to know the exact condition of my colonies how handy it is to pry apart the sections of the brood nest, and see at a glance the exact condition. However, I use hundreds of L hives, conjointly with the sectional hives, for I doubt that it would pay to change for extracting alone. I shall use no more closed-end frames in extracting hives.

I see some very decided advantages in the use of sectional hives, and some disadvantages, but the failure to produce strong colonies in them is not one of the disadvantages. The shallow cases are adapted to a great many simple systems of management, but not so with the deep hives.

I fear that in a locality where foul brood is prevalent, the shallow cases would be objectionable, owing to the time required to make a thorough examination of each comb.

Boise, Idaho, Dec. 7, 1903.

BEES WORKING ON CHRYSANTHEMUMS.

This beautiful picture was taken November 3, 1903, by Mr. Dickson D. Alley, a prominent photographer of New York City. We have other equally good subjects from Mr. Alley's camera, to appear in these columns.

PHACELIA TANACETIFOLIA.

A Pretty Story of California's New Honey Plant.

By Henry E. Horn.

YEARS AGO, when I first began bee-keeping in Southern California, I noticed in the early season the field-bees coming home loaded with at least three main distinct and different colored kinds of pollen. Some carried a creamy-looking variety, some a deep orange, and some came wiggling up the alighting board with enormous lumps of a sky-blue color. I soon found out and knew the particular species of flowers and their plants furnishing each particular kind of pollen; but as they all looked to be mere weeds and so-called wild flowers, I paid no special attention to them any more.

Our honey, whenever we get a crop, is derived from the orange, the sages, and wild buckwheat, mainly, and these are so abundant in a good season that bee-keepers hardly ever notice any other sources; while in a poor season everything is poor—and thus it has come about that Californians never discovered, or recognized, the rare virtues, from a bee-keeper's point of view, of the modest and beautiful Phacelia tanacetifolia.

It was a stranger from far away Germany who, botanically, discovered our brilliant golden poppy, and give her his own name, "Esscholtzia," and it was in a hidden garden nook on the far-away banks of the Rhine where she had absent-mindedly wandered, that our sky-blue "Thousandpretty" was first loved, and being loved, watched over and handled. And the great good-look of "Thousandpretty" was that her lover was a true friend of Apis mellifera as well. Of course Apis and Pretty soon found one another and one can easily imagine the delight with which human eyes watched the mutual approachment, and the prolonged and oft repeated visits of "Apis" to "Pretty."

Now all this happened about ten or twelve years ago. Today, among the bee-men of Central Europe Phacelia seed is an article of commerce, like clover or rape; and many are the praises sung in its favor.

Phacelia grows about 15 to 24 inches high, branching out, or not, according to room. Its foliage is fern-like, and of a color varying from dark green to purple brown. It furnishes bee pasturage in about six weeks from seed. Its flower-stalk forms a sort of an involute, unrolling as it goes, its native name, "fiddleneck," explains this very well. The flowers are sky-blue, star-shaped, very shallow, averaging, perhaps, one-eighth of an inch in depth, and one-quarter inch in diameter.

The bloom lasts about six weeks. It furnishes nectar all day long, but sometimes more, sometimes less. The honey is light amber, sometimes light green, and of a mild aromatic flavor. The sky-blue pollen comes from it alone.

Its fodder value is rated next to clover, and cows fed on it have shown a marked increase in the yield of milk. But cattle will not take it alone by itself at first, for a while it must be mixed with something they are used to. And it must be fed green. It will grow where weeds grow, early in the season or late, and for green-manuring Phacelia is said to equal the pea.

Our wheats and corns and things were once but wild grasses somewhere. Like them, our "Thousandpretty" may yet turn out to be a real discovery.

Riverside, Cal., Feb. 12, 1904.

LAYING WORKERS.

They Are Sometimes Wrongfully Accused.

By Adrian Getaz.

SOME TIME ago, the question was raised in the European bee papers whether there is only one laying worker in a colony or whether there is a large number of them.

The discussion began by Mr. L. Jaspard asserting that having proceeded to the investigation of a colony affected with so-called "laying workers" he finally found instead of a real "laying worker" a very imperfect queen, exactly similar, or nearly so, to an ordinary worker except that with a very close examination the pollen baskets and other work organs were imperfectly developed. Later on Mr. Lacoppe Arnold stated that he had met two similar cases and boldly said that there was probably no such thing as laying workers, and and that all such cases were likely due to the presence of imperfect queens. I might explain here that the imperfect queens are those raised from a too old larva and cannot be fecundated, therefore lay only drone eggs.

Such assertions could not remain unchallenged. Quotations to the contrary from Huber down to Chas. Dadant were produced. Several cases were quoted showing that a large proportion of the bees examined under the microscope had shown enlarged ovaries and eggs. Donhoff had once caught a bee carrying pollen and yet having the enlarged ovaries and eggs, showing the laying worker characteristic. Some say that the laying worker or workers can be got rid of by shaking all the bees at a distance of their home and letting go back those that will. Charles Dadant is quoted as having said that, as far as his experience goes, there is no such thing; and that there will be as many laying workers after the operation as before.

After all was said and argued, it became evident that there are such things as fertile workers and when there is any, they are in large numbers. But, on the other hand, a considerable proportion of the supposed laying workers' colonies are merely cases of imperfect queens.

Knoxville, Tenn., Feb. 11, 1904.

BLACK BEES.

They Have Meritorious Traits Not Possessed by the Italians.

By T. S. Hall.

THE black bees of this part of the country have some very fine points in their favor, while they possess some very objectionable features.

They are a hardy race that winter well, stand the severe changes of spring without dwindling; are never found to be diseased in any way. No such thing as foul brood, black brood, pickled brood or paralysis. They commence to breed very early—much earlier than the Italians. The queens are very large and prolific; they cap their honey snowy white, are good workers, but not quite as good as the Italians. They will enter the supers almost at once when the first honey flow comes. In the spring they work better in the supers than the Italians, putting all their honey above the brood chamber. If they have the room they do not crowd out the queen like the Italians; they are fine queen-cell builders. Their objectionable points are their ill-temper; they are more vicious than the Italians, when we smoke them down they come back just as quick as the smoke stops. Not so with the Italian. They are very excitable and will run off the combs when being handled and easily become the prey of robbers or the wax moth. They are very easy to become discouraged and seemingly just give up when they get weak or the wax moth gets into their combs. If we could eliminate these few objections they would be the best race we have; but those three points are very serious marks against them. If anyone has ever seen black bees with paralysis we would like to hear from them.

If as much care and selection was given the black race of bees as has been given the Italians and other races no doubt there would have been great improvements made on the blacks. Their virgin queens are very quick and active. Their drones are the swiftest flyers and very active on the wing. Selection has brought about considerable changes and improvements, and selections should not all be made from the queen side. The drone transmits certain traits to the progeny of the queen that will not come from the queen. Stock breeders use as much care in selecting their sires as they do in the female. The selections should be made from both sides.

Jasper, Ga., Jan 20, 1904.

(Black bees in South Florida are not less subject to paralysis than other races, we think.—Editor.)

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I wish to congratulate you on your standpoint of limiting The American Bee-Keeper to matters apicultural. One of the rarest of virtues these days is a resolute abstainance from preaching. This is no joke. If you can keep your promiise, you are a rare bird.—Henry E. Horn.

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When writing to advertisers mention The American Bee-Keeper.

CAN WE GET MORE FOR OUR HONEY.

By Mrs. S. A. Smith.

I NOTICE, Mr. Editor, what is being said about trying to force up the price of honey, by we producers.

Our good friend, Dr. Miller, says that, if enough would join the N. B.-K. A., then they could have enough money to do something in this line.

In September Review, the editor says if the money of the National is not used to defend members who go to law justly, they will soon have too much money. Also, if it is not used for that, what will they use it for? Does the N. B.-K. A. wish to help raise the price of honey?

I remember when there were two associations and what was to be done if they would only join hand and hearts. They have done well, but I would like to ask, if they have not lost sight of a great deal that they started out to do?

The way to raise the price of honey, is to raise it. Set an honest price, and then stick to that price. Do not undersell another bee-keeper one cent. If you do so today, tomorrow the other seller will be asked to undersell you; and the next day you will be asked to keep the ball rolling. Do not begin! I say.

Be very careful of your honey. Honey that is unripe, unskimmed and exposed to the air in large tanks or perhaps open vessels, in any humid climate, cannot be first-class, and I have truly seen just such honey for sale, and was asked by the grocer for my opinion as to whether it was honey or some other stuff. If you use your honey that way, you should not have anything for it. Keep it sealed, as the bees do. Who can handle honey better than they. One lady told me, our honey had such a nice perfume about it, she said she knew it came from the flowers by that.

If you are near two or three other bee-keepers, meet and agree on the price of your honey, and then stick to that price.

If you are too far off, postage is cheap. If you think your honey is the best, send them samples, and get samples of theirs. If one is the best then the price should be fixed accordingly. We will all help one another to produce the honey but when it comes to marketing, that's another story.

If the wholesale market is low, do not help it down lower, with your honey. Fruit must be shipped when ripe, but we can keep our product for months. Then why hurry it off just as soon as taken from the hives?

If you say "I must sell, for I need the money very much," just ask yourself this: "What would I have done for money if I had failed to get a crop?"

As it is a very uncertain business, you often do not have the crop to sell; what did you do then?

Keep your credit good at your bank, and see which will pay the best, to borrow money to live on, or sell your honey for anything you can get for it?

I can assure every bee-keeper that there is a consumer who is just as anxious to get your honey, as you are [illegible] e it, and at a good price, too.

There is too much difference between the wholesale and retail price. Think of honey selling in New York for 4 1-2 cents per pound, and the poor who can not afford to eat it, for by the time it reaches them it costs 10 cents a spoonful.

If the N. B.-K. A. wishes to use their money to help bee-keepers, why not loan money on honey, and keep it out of the market until the market is ready for it?

Take all the bee journals you have and see if each year the market has not been good at some date during the year.

I believe in the end the consumer will go to the store and buy his honey both comb and extracted, in a tin can, and that can will be just the same as fruit and vegetables are canned in. A label will tell what is in the can.

Why should honey be put up in glass? Why not demand our meat, fruit, fish and everything else put in glass? Would poor people buy a great deal if it was?

If the N. B.-K. A., or some other association, would put tinned honey on the market, and advertise the same as Swift, Fairbanks and everything else is advertised, then both sides would get the honey and money that is due them.

When you pick up one of our first-class magazines you see everything else advertised except honey. Then we are foolish enough to wonder why we cannot get anything for our honey.

We use all our brains and energy to produce, and there we quit. It's wrong.

I know you are tired, so once more I will say don't, don't, don't sell for less than your price, and be good to your product.

Grant, Fla.

THAT FRAME OF FOUNDATION.

By Adrian Getaz.

I AM ACCUSED of colliding with Mr. Poppleton's opinions.

I don"t see it. That's altogether a question of view point. Mr. Poppleton looking at that comb of foundation from the standpoint of an extracted honey producer, while I was writing from the position of a comb honey raiser.

An extracted honey producer is supposed to have plenty of built combs, and all he has to do is to give enough of them to accommodate both surplus and brood. There is absolutely no need of giving foundation except when he needs more combs.

But the comb honey raiser is altogether in a different position. He can give only foundation in the sections instead of combs already built. When the honey flows come there is no room yet in the sections to deposit the honey. Then the honey gatherers put it in the brood-nest as fast as the brood emerges, disputing the cells to the queen. Eventually swarming occurs as the result of such a condition of affairs.

Now, we take out a comb and give a sheet of foundation. It takes the bees some time to draw the foundation, further more the queen can lay in the cells as soon as they are stretched, while they cannot be used for holding honey until they are about an eighth of an inch longer. These two causes enable the queen to keep up with the comb-builders and fill the comb with eggs.

As I said, the object in view is to prevent swarming. As long as there is plenty of brood to feed, the nurse bees will not waste their time on queen cells.

Giving an already-built comb will not answer. The thousands of honey gatherers contained in the hive would fill it with honey at once before the queen could even make more than a beginning at egg-laying.

Knoxville, Tenn.

WILTSHIRE BALLAD.

The Harnet and the Bittle.

A harnet sat in a hollow tree,
A proper spiteful twoad wur he;
And he merrily sung as he did set,
His stinge as sharp as a bagonet.
Oh! who's so bowld and vierce as I
I vears not bee, nor waspe, nor vly.

A bittle up thuck tree did clim,
And scornfully did look at 'im,
Says he: "Sir Harnet, who guv thee
A right to set in thuck there tree?
Although you zing so nation (very, extremely) vine,
I tell-'ee it's a house o' mine."

The harnet's conscience felt a twinge,
But growin' bowld wi' his long stinge;
Says he: "Possession's the best law,
So here thee shasn't set a claw.
Git out and leave the tree to me,
The mixen's (dunghill) good enough for thee."

Just then a yuckel (woodpecker) passin' by,
Was axed by them their cause to try;
Thinks he, 'tis very plain to see,
They'll make vamous munch for me.
His bill was sharp, his stummic leer,
So up he snapt the caddlin' (quarreling) pair.

(Moral.)

All you as be to law inclined,
This leetle story bear in mind;
For if to law you ever go,
Be sure they'll allus sarve you so.
You'll meet the fate of them there two,
They'll take your cwoat and carcase too.

—T. P.'s. Weekly.

I like The American Bee-Keeper very much, and think it is improving all the time.—Geo. B. Howe.

Windbreaks in winter are beneficial.

THE

Bee-Keeping World

Staff Contributors: F. GREINER and ADRIAN GETAZ.

Contributions to this Department are solicited from all quarters of the earth.

GERMANY.

The honey producers in Germany seem to be bothered more than we in America to sell their product. The reason lies in the fact that the selling part of the business has not yet been reduced to the system as here in America. They are lacking the middleman; the very man cried down so much here. He, as he does in America, could serve a good purpose there as well.

Very good retail packages for extracted honey are offered for sale to the German bee-keepers, some holding as little as 1-4 pound, and up to 10 pounds, made of flint glass. Glassworks in Silesia make them in six different styles.

The German bee-keepers are in a sad plight as to honey adulterations. A dealer of honey in Hamburg says: "A great deal of artificial honey is consumed in Germany. The product is usually sugar-syrup flavored with a little honey and bee-bread decoction. Unfortunately a great deal of fraud is practiced and the artificial mixture is palmed off as the genuine article, sold to bakeries and small consumers. The authorities are powerless, as there is no sure way to detect the fraud outside of judging by the taste and odor, and they have given up the idea of watching for adulteration in honey."

P. Neumann, after an experience of twenty-five years with foul brood says in Leipz. Bztg. that with the exception of a very few cases he has always been able to trace the different cases to the transmission of the disease from one hive to the other, from one bee-yard to another. Not until the bee-keepers become convinced that the fire-cure is to be practiced on discovery of a foul broody hive will the disease be controlled.

Generally speaking German writers favor the destruction of foul broody colonies by fire. Editor Reidenbach, (of Phalz. Bztg.), however, is opposed to this. He makes a distinction between foul brood in light form and that in a malignant form. Under favorable conditions the former generally disappears of itself and the McEvoy treatment would not be necessary, so he says. Lichtenthaler asserts in Die Biene, that honey per se does not carry the disease to other hives, the infectious spores and the bacilli are contained in the pollen. He says further that the foul brood is a harmless disease for the experienced, but may become a dangerous affair with the careless and inexperienced.

The writer of this has been studying and thinking how to get around buying high-priced lumber for bee hives and his mind has turned (?) to the paper and straw. A German friend tells in Leipzigor Biene Zeitung how he makes use of waste paper. He says: "A receptacle is filled up with the paper and the latter is covered with water. Thus it is left for several days. Then it is hauled over with a garden rake and stirred smooth till it is a sort of pudding. This is then poured into forms and smoothed down. In this shape it is left to dry for several weeks when the paper boards are dry enough to be made up into hives. They can be sawed, bored, nailed but not planed. I make the boards 1 1-2 inches thick. The hives made from them are very warm in winter and cool in summer. Well painted they will resist the weather first-rate. With the primitive means employed I have not been able to make hives all in one piece."

Steenhusen, the editor of the Schlwg. Holst. Bztg. thinks it is unlawful to put out decoy hives, and discusses this question at length in his paper. Others hold a like opinion and say that a man can be taken to task for keeping empty hives (full of comb) setting in his bee-yards when it can be proven that he does so to induce stray swarms to take possession of them. It should come under the same head as trapping bees, which is unlawful.

ITALY.

The bee-keepers of Italy do not seem to see the need of a bee journal. The Apicoltore has but 400 subscribers.

B. V.

PALESTINE.

Palestine has been called the land where milk and honey flows, and judging from what the Bible says one might be lead to think that the bee-keeping industry must have flourished in Bible times. It is, however, pretty well conceded that the word translated with "Honey," by Luther meant in most instances, "something boiled down to a jelly—grape jelly," an article used even now in the Holy Land by the wealthier people and travelers in place of butter, which is scarce. There were probably many wild bees in the woods and in caves, but none were kept in hives domesticated. Since these times the timber has all been destroyed and wild bees have become a rarity. Not many bees are kept now in hives although the conditions are favorable for bee-keeping. The European imigrant is the only one carrying on modern bee-keeping, averaging 60 pounds per hive. Failures are not known. The earliest honey is gathered from almond and apricot blossoms, followed by orange blossoms. Thistle, cactus and other weeds furnish some honey later. Some bee-keepers migrate to the mountains and into the vicinity of Bethlehem.—From Schlesw. Holst. Bztg.

CHILI.

A report from a Chilian bee-keeper states that an apiary of 160 colonies bought in the country and transferred in modern hives, gave (in 1903) 340 swarms. No foundation was given. The crop of honey was 37,000 pounds; 74 pounds per colony, all counted, or 231 pounds "spring count." Apiculture is on the increase. The natives use but very little honey, only as medicine. Practically all is exported, the present price being about 7 cents per pound. All extracted honey.—From Rucher Belge.

SIBERIA.

The winter in Siberia is not only very cold but lasts about seven months, from the middle of September to the middle of May. The snow is very abundant, sometimes eight or ten feet deep. The summer comes suddenly as soon as the snow is melted, is exceedingly warm, especially during the day, and ends as suddenly as it began.

The honey is gathered almost exclusively from the lindens. There are seventeen different varieties of them, blossoming successively during nearly the whole season. The colonies are wintered in buildings erected for the purpose. Most of the bee-keepers are specialists and establish their apiaries in or near the forests. The hives are imported from the United States, that is, the majority of them. Each is set on four small posts, and has a roof above. In the fall, or rather beginning of the winter, the weak colonies are united, sometimes five, six or more together. No colony weighing less than 14 pounds (of bees) is wintered. Hives are hung on the trees to attract and capture the runaway swarms. The bees remain in the hives during the middle of the day on account of the excessive heat. The honey (chunk honey) is sold at about 17 cents per pound.—From the Apiculteur.

SWITZERLAND.

Mr. Edouard Bertrand, the editor of the Revue Internationale d' Apiculture, announces that the paper will be discontinued at the end of the present year, (1903). His health and strength are beginning to fail, and it is necessary for him to seek some rest. The Revue is, or rather has been, the best of all the bee papers published in the French language. It has lasted 25 years. Mr. Bertrand is the author of some of the best works on bee-keeping in existence. It is hoped that the Suisse Romande Society of Apiculture will undertake to continue the paper.

FRANCE.

A swarm had introduced itself into the wall of a frame house and decided apparently to stay there. A bee-keeper

(Mr. Le Haulx) was called to dislodge them, if possible without doing too much demolition. After some hard thinking, Mr. Le Haulx brought a hive with a comb of brood and honey from his apiary, installed the hive against the opening in the wall putting a Porter escape between the wall and the hive so the bees could come out of their place but not go back. He thus succeeded in capturing the entire swarm.—Gazette Apicole.

THE FUTURE.

It would not be surprising if, after a year so discouraging as 1903, many bee-keepers should feel inclined to take less interest in the industry. Indeed, the reports—the "Melancholy Record," which we publish in October would go far towards justifying a falling-off in enthusiasm. But there has been no falling-off, nor any sign of despair; and this, in itself, is of more value to the country than an abundant honey harvest would have been. Because it is now, more than ever before, evident that the men who have taken to bee-keeping are made of the stuff that the country wants; men who are not to be defeated by reverses, who are prepared to take the rough with the smooth, and who, when they suffer loss, to determine to make the future retrieve it.

It is refreshing; it is worth going through a disastrous season, to experience this kind of hopeful enthusiasm on the part of men who have, beyond doubt, been badly hit in their business. Truth to tell, our correspondence has brought us more encouragement this year, just because of the evidence it has given of a spirit of confidence on the part of our friends—confidence in themselves, and in the recompense which they look forward to. We like the man who can say: "It was not the fault of the bees. They will serve me well when brighter days come for them and for me," and who puts on the candy cakes, and dry, warm wraps, waits for the future with steady hope. By such as he it is that success is dedeserved or won.

There are three or four months to come before active work in the apiary can begin again. What is to be done with the winter months? Well, this is the season for making and repairing hives, for re-arranging apiaries, for comparing notes, and forming plans for the coming year. Now, in the long evenings, there is time for study. A good, useful bee-book; an hour by the fireside with Maeterlinck, will yield both pleasure and profit. The great point is to leave nothing undone that can help to the attainment of the objects in view. The practical bee-keeper looks well ahead. He is never taken by surprise when the business in hand calls for his attention at a moment's notice. He knows that few things done in a hurry are lasting, are well done. He makes his preparations beforehand. Not even the activities of bee-life can find him unready.—Irish Bee Journal.

A GREAT SUFFERER.

Perhaps the Bohemian bumble-bee has been the greatest sufferer from weather ravages. He has no warm hive to shelter him, and no candy or syrup put down for his consumption. When belated frosts or untimely storms come, his nest of withered grass or moss is often devastated, and poor Bombus, as he is called from the volume of his buzz, perishes. There has been so far this year as great a scarcity of bumble bees as of butterflies, owing to inclement weather. One, the first this year, was seen in an uncut clover field near Epping. The great velvety fellow was blundering and buzzing among the purple clover heads with all the bustle characteristic of his species. And he knew that he had the purple clover to himself, for the hive bee's tongue is not long enough to reach that flower's nectar. Perhaps that was some compensation for the fact that a bumble-bee is born to shift for himself, and face storms. —Daily Express (London), July 14th.

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We like the American Bee-Keeper very much, and wish you much success for 1904.—T, S. Hall.

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Chaff cushion divisions are preferable to boards alone, as they are warmer.

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Division boards should be used in all weak colonies, thus contracting the space.

THE AMERICAN BEE-KEEPER

PUBLISHED MONTHLY
THE W. T. FALCONER MANFG. Co.,
PROPRIETORS.
H. E. HILL, - EDITOR,
FORT PIERCE, FLA.

Terms.

Fifty cents a year in advance; 2 copies 85 cents; 3 copies $1.20; all to be sent to one postoffice.

Postage prepaid in the United States and Canada; 10 cents extra to all countries in the postal union, and 20 cents extra to all other countries.

Advertising Rates.

Fifteen cents per line, 9 words; $2.00 per inch. Five per cent.' discount for two isertions; seven per cent. for three insertions; twenty per cent. for twelve insertions.

Advertisements must be received on or before the 15th of each month to insure insertion the month following.

Matters relating to business may be addressed to

THE AMERICAN BEE-KEEPER,
Fort Pierce, Fla., or Jamestown, N. Y.

Articles for publication or letters exclusively for the editorial department should be addressed to the Florida office.

Subscribers receiving their paper in blue wrapper will know that their subscription expires with this number. We hope that you will not delay favoring us with a renewal.

A red wrapper on your paper indicates that you owe for your subscription. Please give the matter your early attention.

Editorial

As an experiment, an apiarist in quest of a situation invested twenty-five cents in the Bee-Keeper's cent-a-word column, recently. Before the month was out he wrote that inquiries had been received from bee-keepers from Vermont to California. As a southern location is preferred, he has a choice between Texas and Mississippi, from both of which business propositions have been received. Possibly, other of our readers have failed to appreciate the efficiency and cheapness of this department.

Texas has a new bee-keepers' association, organized at Beeville, Texas, Feb. 1, and to be known as the Nueces Valley Bee-Keepers' Association. Mr. W. H. Laws, of Beeville, is secretary of the new organization.

An association of bee-keepers was organized Jan. 30, in Knox county, Ill. The regular annual meeting will be held in April and a rousing attendance is anticipated. Mr. J. E. Johnson, of Williamsfield, is president, and E. D. Woods, of Galesburg, secretary of the new society.

In the last annual report of the National Bee-Keepers' Association there appeared a list of prices on honey cans. General Manager France desires to inform the readers of the American Bee-Keeper that "these prices will not be granted any longer."

In view of different opinions recently expressed in these columns, in regard to the amiability or viciousness of the Cyprians, it would be interesting to have a brief statement of the experiences of the fraternity in general upon this point. We shall be pleased to hear from those who have had to do with this race of bees.

A winter of unusual severity is drawing to a close, and its effects upon the bees is a matter of quite general interest. Brief reports of the results in wintering would be quite in order for the April Bee-Keeper, and we shall be pleased to hear from our readers throughout the country in regard to this point.

SECTIONS.

Commenting editorially upon Mr. Heddon's article in The Bee-Keeper, the American Bee Journal says: "If, perforce, we must go back to four-piece sections, we may as well take all the comfort we can out of the advantages thew offer. They can be made out of any kind of wood, and no one pretends that basswood is the best lumber for sections where no bending of joints is needed. It is true that a one-piece section that is not square can be made square, but it will not stay square unless rigidly held so, while a four-piece section stays square of itself. There is generally danger of breaking some sections in putting together one-piece sections unless the joints are wet, and it is extra trouble to wet the sections aside from danger of discoloration from wetting. This breakage and wetting is saved when using four-piece sections. Besides the breaking when folding sections, there is the breaking that sometimes happens after the foundation is put in, which is worse, and very much worse if it occurs after the section is filled with honey. Four-piece sections avoid this. Possibly we may find comfort in discovering other advantages, but these are enough to show that the change, if the change must come, will not be an unmixed evil."

Though the Journal has not enumerated all the objections peculiar to the one--piece section, it might find additional "comfort" in an effort to compile so formidable an array of "evils" against the four-piece style.

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SELLING EXTRACTED HONEY IN THE LOCAL MARKET.

On page 19 of The Bee-Keeper for January is discussed the advisability of readopting the word "strained" instead of "extracted," as now used in connection with liquid honey.

As a result of an experience related by Mr. W. L. Coggshall during his recent visit with The Bee-Keeper, we are moved to touch again upon this subject. As an experiment, last fall, Mr. Coggshall inserted a small advertisement in a local newspaper published at Ithaca, near his home in New York state. The "ad" simply stated that for ten cents a pound he would deliver at the buyer's door pure strained honey. The result was that 600 pounds were ordered and delivered. The newspaper announcement cost Mr. Coggshall 75 cents. He is quite confident that the success of the enterprise is attributable to the virtue of that word, "strained." People know what "strained honey" is; while "extracted honey" is yet a mystery to the million.

If there is more money in "strained" honey than in "extracted," even though it be taken with the extractor, it does not seem advisable to stand upon the technicality while good business rushes by. It is our obvious duty to see that the populace is amply provided with honey, whether it is called comb, bulk, extracted or strained. It's profitable business and honest dollars that the producer wants; and the people may call the goods what they will.

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W. L. COGGSHALL IN FLORIDA.

Mr. W. L. Coggshall, of Groton, N. Y., in company with his brother, David H. Coggshall, in returning from a tour of inspection in Cuba, where he has extensive aparian interests, stopped off to favor the Bee-Keeper with a day's visit, recently. W. L. has about 1,900 colonies in New York state, 800 in Cuba and extensive apiaries in New Mexico and Colorado, aggregating, approximately, 3,500 colonies; while David H. has 600 colonies near his New York home. Like most other men of great achievements, Mr. Coggshall is in manner extremely modest and unassuming.

During their visit, The Bee-Keeper secured a photograph of the distinguished gentlemen, which it hopes to present next month, in connection with an article of interest from the pen of the most extensive bee-keeper in the world.

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END STAPLES IN BROOD FRAMES

We have several times in these columns expressed our preference for end-staples in the bottom-bar of brood frames. An ordinary widow blind staple driven into the end-bar until it projects 5-16 of an inch affords a valuable safeguard against maiming or killing a queen and greatly facilitates rapid and easy work when manipulating a hive. This idea we learned many years ago in the apiaries of Mr. J. B. Hall, of Canada, and have continued it in use ever since, with increasing satisfaction. The big guns of beedom, however, seem to prefer the end staple at or near the top of the frame where it is almost useless, notwithstanding our humble protests upon several occasions. It was therefore gratifying to learn, during Mr.

Coggshall's visit, that he invariably uses the staple in the end of the bottom-bar, where it is of genuine service to the rapid manipulator.

THE MAKING OF THE QUEEN-BEE

To the American Bee Journal columns Mr F. Greiner contributes a vrey interesting translation from the German, by Pastor Kline, bearing the above heading, and supported by this foundation sentence.

"In regard to the physiology of the worker and the queen bee I have concluded, after a close observation, that the female bee-larva, when but little developed, embraces within her little body two distinct possibilities or tendencies, viz: 1st, to develop either into a mother-bee, or, 2nd, into a nurse or worker bee. One is irresistibly forced to the conviction of its being an error that the worker-bee is a dwarfed or undeveloped female bee, for in the worker as well as in the queen do we find different organs in the highest state of perfection. The worker is endowed with that wonderful system of glands, the pollen-baskets, the stronger tongue and jaws; the queen with those perfect organs of reproduction."

Mr. Kline proceeds to show that no distinguishing line really exists—that the degree of development of the respective functions is proportionate to extent or thoroughness of the treatment during the larval stage, as prescribed by nature—and that the distinguishing characteristics blend, or overlap to an extent that entirely obliterates the dividing line. He says:

"What do we know about a larva developing into a worker in one case, into a queen in another? It is believed that we must look for a certain admixture in the larval food, or that the latter is more plentifully administered, and thus produces the queen bee. It appears that as soon as the larval food is changed the development changes with it, but it comes very gradually. I have taken five-day worker larvae and transferred them to queen-cells. They should have been sealed after one-half day, but it was accomplished only in a full day, and yet the resulting queen could hardly be distinguished from a worker. The older the larva selected for a queen at the time the change is made, the nearer the resulting queen will be like a worker.

"Worker larvae, when from one to one and a half days old, have hardly received other treatment than queen larvae. Not till the end of the second day can we notice that the larval food is more scantily supplied to worker than to queen larvae. Even when a three-day worker larva is placed into a queen cell full of royal food, its growth is slower than that of one that has been in a queen cell from the beginning, and we can notice some distinguishing marks in the natural insects between those that were reared from one, or two-day larvae. I transferred 30 one-half to one day old worker larvae to queen cells, let them remain therein for two days, and finally returned them to worker cells. I succeeded only with two. One of the larvae was immediately sealed after the second transfer, and produced a perfect worker bee; the other one was not sealed quite so quickly and produced a queen, small and weak, showing round head and curved hairs on the hind legs, and possessing a short tongue. This experiment shows that a queen larva can be changed into a worker."

"The moral of the whole," says Mr. Kline, "is this: The earlier a larva receives royal treatment, and therefore the more lavish she is fed, the better and more perfect will be the resulting queen."

In conclusion, Mr. Greiner makes the following supplementary comments: "While I fully endorse the moral, I wish to say this: Our positive knowledge of this mysterious matter is restricted to the fact that the queen larva is fed more lavishly and slightly differently during the latter period of her life. We do not know that this difference in food and food supply produces the results we see. I believe the real cause is not understood, and what we see are only the accompanying circumstances."

It is evident, as asserted by Mr. Greiner, that nothing very definite is really known upon this subject; but The Bee-Keeper is pleased to be able to assure its readers that this problem is now undergoing a series of very careful and thorough experiments at the hands of a most capable student of apiculture, and one who is especially conversant with the biological phases of the art. We therefore anticipate the development of knowledge before the lapse of many months which will prove of inestimable value to queen breeders. There's "somethin' doin'."

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A GOOD FARM PAPER FREE.

The Bee-Keeper invites the attention of its readers to an announcement in the advertising columns of this issue offering them a free yearly subscription to the American Farmer, Indianapolis, Ind. The price of the Farmer is 50 cents a year, but by subscribing for it through The Bee-Keeper office, and in connection with The American Bee-Keeper, it will cost our readers nothing for a whole year. We believe many of our subscribers will be glad to avail themselves of this liberal offer; and we shall esteem it a special favor if they will kindly mention this proposition to any bee-keeping friend not at present a subscriber.

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A NOTEWORTHY THAW IN MISSOURI.

In our January issue we "had to show" Editor Abbott a few things in regard to specialized journalism in apiculture. In his journal, the Modern Farmer and Busy Bee, for February, Mr. Abbott comes back at the editor of The Bee-Keeper with the following sarcastic thrust. It is a relief, however, to be permitted to read something in a cheerful vein from Mr. Abbott's pen, when criticising a point not wholly in accord with his own views upon the subject:

> There comes a wail from the swamps of Florida that indicates that Bro. Hill, of the American Bee-Keeper, is in a bad way. However, his friends need not be alarmed. He will no doubt come out all right, for we see that he reads The Modern Farmer and no man who peruses regularly the clean pages of this high grade, moral, agricultural monthly can remain off his base very long.

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The American Farmer free to our readers. See announcement elsewhere.

BEE PARALYSIS—WHAT'S THE CAUSE?

With reference to Mr. Atchley's theory as to the cause of bee-paralysis, Mr. O. O. Poppleton, whom we consider one of the very best authorities in the country upon the question, says: "Mr. Atchley must have either a very peculiar kind of bees or an unusual form of paralysis." "For," says he, "one of the distinguishing characteristics of the malady is an abnormal brood-rearing inclination, so much so that they are rarely able to care for the excessive amount of brood found in afflicted colonies."—American Bee-Keeper.

The above editorial we clip from the American Bee-Keeper, page 255, 1903. While I have always had due reverence for Mr. Poppleton and all other bee brethren, Bro. Hill, it is very essential that we get at the root of these matters. Mr. Poppleton is high authority on apiculture, but I feel very sure that he is mistaken as to bee paralysis. Please allow me to ask Mr. P. a few simple questions, and if he will give satisfactory answers then I will bow and sit down. First. Why is pollen always found in the sacs of bees dying with paralysis? Second. What was that pollen taken for? Third. Is not pollen always used in brood-rearing? Then why are bees always healthy in confinement when they have no pollen at all? Certainly, the very character of the so-called disease is an abnormal brood-rearing inclination, as everything would be normal if it were not so. Why, sure bees are not in a shape to care for brood when they have their bodies chock full of old, soured pollen, which has been there so long that they cannot use it, and ultimate death is the only alternative for Nature to perform.—Southland Queen.

The foregoing extract was submitted to Mr. Poppleton with a request for an early response, and the following hurriedly written comments are the result. From a long and intimate association with Mr. Poppleton, we are strongly inclined to believe that Brother Atchley will find his opponent quite equal to any demands he may be pleased to make upon his resources, in the matter of practical experience with paralysis; and that Mr. Atchley's position must be greatly reinforced before it is generally regarded as tenable by the craft.—Editor Bee-Keeper.

Stuart, Fla., Feb. 17, 1904.

Friend Hill:

Thanks for the clipping you sent me from an editorial in the January number of The Southland Queen. I will try to answer Mr. Atchley's questions.

To his first and second questions I would say that it is not a fact that "pollen is always found in the sacs of bees dying with paralysis." All the diseased bees that I have dissected and examined with Coddington lens showed no appearance whatever of pollen in the sacs. They seemed to be filled with pure honey. To his third question the only answer there can be is yes.

I cannot help thinking that I was right in saying that "Mr. Atchley must have either a very peculiar kind of bees or an unusual form of disease." His theory is quite ingenious, but, unfortunately, several well-observed facts throw almost certain doubt on the theory.

1st. Drones are quite subject to the disease, and they have never been accused of being chyle producers. Mr. Atchley is without doubt mistaken when saying that drones do not die with the disease. Many others besides myself have reported on that point, at least two Texas beekeepers having done so within the last two months.

2nd. The disease seems to be much more prevalent in certain strains or families of bees. At least four times within the last ten years I have had to utterly destroy certain queens and all their daughters; nearly all the cases in my apiary being confined to these particular bees. Certain queens seem to transmit the germs of the disease through queen daughters to their progeny. This looks as though there can be but little doubt that the disease is of a nature to be transmitted from one generation to another. It will, however, take the most skillful scientific examination to absolutely determine this point—an examination which neither Mr. Atchley nor myself have the facilities to do.

3rd. Colonies which have had the disease one season, but recovered without treatment of any kind, are much more liable to have the disease next season than are other colonies.

4th. It is the old bees, the field workers, that die; not, as a rule, the [illegible] are the ones that prepare the chyle. If chyle was in any manner the cause of the disease, the nurse bees would be the ones affected, not the field workers. My own conclusions, as to cause and effect, are directly opposite to those of Mr. Atchley. I think the strong inclination shown by the diseased colonies to rear all the brood they possibly can is caused by the disease, and that the disease is not a result of the brood rearing inclination.

All badly diseased colonies are very short of field workers and have an unduly large proportion of young or nurse bees. All weak colonies with prolific queens have a strong desire to raise all the brood they can. In nearly all badly diseased colonies many more eggs are laid by the queen than the few field workers can gather food for. I have never noticed that colonies developed any abnormal brood rearing desire before being weakened by the disease. It looks to me as though the facts point to a shortage of the chyle supply rather than an over supply.

The undoubted fact that the proper use of sulphur has and will cure the disease indicates that its nature is entirely different from Mr. Atchley's idea of it. I don't see how that fact and Mr. Atchley's theory can be reconciled.

There are still other reasons why it looks to me as though Mr. Atchley's "facts" on which he bases his theory, are quite badly mixed.

While I am not absolutely certain that sick bees can carry the disease, yet I am so well satised that they can do so that I take considerable care to prevent it. O. O. Poppleton.

REMOVING SECTIONS FROM THE SUPER.

In Mr. Greiner's interesting article published in this number, he refers to the liability of the one-piece section to pull apart at the dovetailed corner when removing finished goods from the super, and asks if our trouble in this respect may not be multiplied by the use of a section having four such corners.

We do not know Mr. Greiner's method of removing completed sections from the super; but in all the comb honey we have handled we do not remember to have had such an experience in a single case, and do not think it has occurred. This experience includes the handling of many carloads of comb honey, and in sections of various types. The plan we use may be of interest to some of our readers:

If the T-super is in use, have a wide board (similar to a new, uncleated flat hive lid) always at hand. Upon this place smoothly a piece of carpet fully as large as the top of the super. Slacken all wedges, stand the super on end, stand the cloth-covered board against the open top, incline the super towards the board and in direct contact continue the motion with both until the super rests inverted upon the board and lays flat upon the work table. The super may now be readily lifted, and the sections stand free. In case of extreme propolizing, it may be necessary to lift one end of the super and let drop with slight force upon the carpet, but no harm will come to the honey as a result.

If a super on the plan of the old Heddon style is used, the super is inverted in the same way, and the sections forced down to the carpet by means of a follower made of a piece of 4x4.

OUR
CORRESPONDENTS

Elmira, N. Y., Feb. 21, 1904.

Gentlemen: I wish to ask a little favor of you in regard to hiving swarms. Now we can hive one swarm all right, but when two or more come out and light on the same limb, at the same time, we have a hard time of it, and in a good many cases we lose some of the swarms. If you can give a little advice upon this question through the columns of The Bee-Keeper we will be very thankful to you. Sincerely yours,

Chas. Koop.

When two or more swarms in the apiary are out at the same time, they usually combine in the cluster. We have seen 18 swarms thus clustered together. If queens are not clipped, the apiarist, under such circumstances certainly has a most disagreeable job upon his hands. To guard against any such unpleasant condition of affairs, where natural swarming is permitted, it is well to have all queens clipped, and promptly caged as they issue. Such combinations usually all return to one hive, that hive being the one upon the alighting-board of which a caged queen has been left exposed; and when in the judgment of the operator, a proper proportion of the cluster has entered with the first queen, the hive may be removed from the stand, well covered with a sheet, and another empty hive placed at once in its place and another queen released with the ingoing bees. In this way the process may be repeated as often as the number of queens and swarms may dictate, and no difficulty is involved. If queens are not clipped, and the apiarist is unable to find in the festoon and cage the superfluous queens, perhaps the better plan would be to shake the swarm upon a sheet several feet from the entrance to the hive prepared for its reception, put a few bees close enough to the entrance to give the call and start in; then, with cage in hand sharply scan the moving mass as it proceeds to the entrance, and cage the extra queen or queens. If the eye is trained to such work, the queens may usually be found in this way, and the swarms thus divided. Our advice is, however: Have your queens clipped, and thus insure the safe and easy management of swarms. With unclipped queens at swarming time, the apiarist must "trust to luck." To the writer the plan is most unsatisfactory.—Editor.

HONEY AND BEESWAX MARKET.

Boston, Feb. 19, 1904.—There is a little better demand in comb honey, which is the beginning of the spring demand. The stocks in hand are ample to take care of all possible demands. Our prices we quote as follows: Fancy white, 16c.; A No. 1, 15 1-2c.; No. 1, 15 to 15 1-2. Extracted, fancy white, 8c.; light amber 6 1-2 to 7c., according to quality.—Blake, Scott & Lee.

Toronto, Canada, Feb. 22.—We are under the impression that a good many bee-keepers who sold honey early in the season are ahead, as the prices and demand for honey at present are not so good as earlier. The supply is abundant, with rather slow demand.

We quote our market today as follows: Comb, $1.25 to $1.50, wholesale. Extracted, 6 1-2 to 7 1-2c. Beeswax, 30c. —E. Grainger & Co.

Milwaukee, Feb. 15.—The demand for honey is dragging slow, with liberal supply. We are hoping and expecting an improvement in the demand during the spring months. We quote: 10 to 14c. as to quality, for comb honey; extracted, white in barrels, 6 1-2 to 7c. in cans and pails, 7 1-2 to 8c. Beeswax, 30c. for choice, pure goods.—A. V. Bishop & Co.

Kansas City, Mo., Feb. 13.—We believe the demand for honey will begin to increase from now on, but do not think prices will go any higher. The supply is large, with fairly good demand. We quote: Fancy comb, $2.50 No. 1, $2.40 per case; extracted, 6 to 7c. Beeswax, 30c.—C. C. Clemons & Co.

New York, Feb. 13.—Some producers hold back their honey too long. In the fall the demand was good at good prices; now concessions have to be made to move it. The supply is quite large for this time of year. The demand is rather slow for all kinds. We quote our market today as follows: White comb, 12 to 14c.; dark, 9 to 11c.; extracted: white, 6 to 6 1-2; dark, 5 to 5 1-2c. Beeswax, 28 to 29c.—Hildreth & Segelken.

Albany, N. Y., Feb. 18.—The unprecedented cold winter has made the demand for honey slow at any time. There is a surplus in the -market. We quote: Comb, 10 to 13c.; extracted, 5 to 7c. Beeswax, 28 to 30c.—H. R. Wright.

Hamburg, Germany, Jan. 6.—California amber, per cwt. $8.33; white, $8.80. Shipments of honey soon due are offered at $7.66 and $8.14. All honey importations are subject to import duties of $4.76 per 100 lbs.—L. Gabian.

Denver, Feb. 13.—The supply of honey in fancy grade is small, though plentiful in No. 2 and off grades. The demand is better than last month. The probabilities are that stock will all be cleared up before the new crop arrives. We quote our market as follows: No. 1 comb, white, per case of 24 sections, $2.50 to $2.75; No. 2, per case, $2.25 to $2.40; extracted, white, 7 1-2c., light amber, 6 1-2 to 6 3-4c. Beeswax wanted at 26 to 30c.—The Colorado Honey Producers' Association.

Chicago, Feb. 8.—The demand is better for all grades of honey than at any time since beginning of December of last year. Stocks are now being reduced, but at the same time prices are easy. Many have had it so long that they are anxious to make sales. No. 1 to fancy white comb honey sells at 12c to 13c.; amber grades, 10c to 11c.; dark, etc., 9c. to 10c.; white extracted, 6c. to 7c., according to quality, kind and flavor; amber 5c. and 6c. Beeswax, 30c. per pound.—R. A. Burnett & Co.

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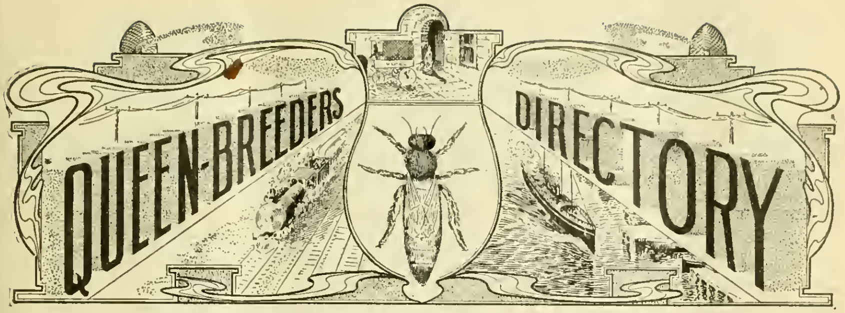

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1904
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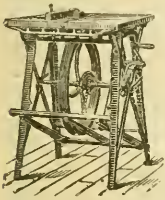

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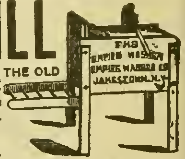

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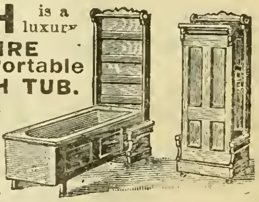

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THE AMERICAN BEE-KEEPER

Vol. XIV APRIL, 1904. No. 4

An April Morning.

THIS morning when I woke I heard
The low, sweet chatter of a bird
Beside my window, where so long
I've missed the music of the song
That filled last summer with delight,
And saw a sudden, arrowy flight—
A flash of blue that soars and sings—
A bit of heaven itself on wings.

"The bluebird has come back!" I cried,
And flung the window open wide.
I leaned across the mossy sill,
And heard the laughing little rill
That comes but once a year, and stays
Through the brief round of April days,
Then, when its banks with blooms are bright,
It seems to vanish in a night.

The old spring gladness filled the air.
I breathed it, felt it everywhere.
How blue the sky was! and a tint
Of color that was just a hint
Of "green things growing" greeted me
Along the willows by the lea,
And I could feel, and almost hear,
The quickened pulses of the year.

A warm south wind that seemed a draught
Of wine the sweetest ever quaffed
Blew round me, bringing balmy smells
That made me dream of pimpernels,
And arbutus blooms in pinewood nooks,
And gay wake-robins by the brooks,
Whose heart with spring's swift joy was stirred.
And I was happy as the bird

—Eben E. Rexford in Home and Flowers.

PRINCE OF AMERICAN BEE-KEEPERS.

He Tells American Bee-Keeper Readers Something of His Early Career, Failures, Obstacles and Successes.

By W. L. Coggshall.

FIRST, I liked honey and had a fondness for insects, especially bees. When but 10 years old—1862—we got our mail but once a week, and I, being the youngest, was sent for it, a mile distnat to a neighbor's usually on Sunday morning. This "neighbor," Mr. Metzgar, had bees; and I much preferred seeing the bees swarm to going to church, especially as in war times the sermons lasted nearly one and a half hours, and then Sunday school, which augmented the interest in bees on Sunday. Well do I remember the arguments my mother used to hold with me because I failed to get home earlier with the mail on Sunday morning; as waiting for me caused them to be late for church. If I remember correctly, they did not always wait, and this was quite agreeable to myself.

Well, the outcome was that father got a "skep" of bees so that I might see them swarm at home; and they did swarm—up in the spare room where they were put for winter—one warm day in March. Oh, how I did mourn the loss of those bees.

The next year my grandfather gave D. H., my older brother, one "skep," and how well I remember splitting elder stalks and cleaning out the pith and slipping it into the hives to catch the worms of the moth-miller, which destroys so many bees. They cast a big swarm, and the next year D. H. bought Kidder's book on bees, as well as a farm right to make his patent hive.

In 1866 I bought a "skep" for $5.00. It cast three swarms, and I got $8.00 worth of honey. The next year the firm of Coggshall Bros. was formed. The capital stock was not in the thousands. We had about thirty colonies in Kidder and box-hives. These were put into the cellar to winter, but in the spring were taken out nearly all dead. This was a serious loss to us, but we were not entirely discouraged, and soon bought more bees; so that in 1868 we had eighty colonies. That winter we hauled in logs and with horse-power and a saw-table built by my brother, we cut and made 150 Langstroth hives. Those hives are in use today. They were painted two coats of paint. Right here I beg to say that I honestly think that a square joint is better than either a miter or dovetail, for durability—and they are certainly cheaper. The severe winter of 1869-70 resulted in the loss of our bees; but we stocked up, and by 1871 we again had eighty colonies.

My brother made an extractor, using the gearing of an apple-paring machine in its construction. This was the first extractor in the country. Our crop of 3,000 pounds of extracted honey was sold to C. O. Parrine at 12 1-2 to 15 cents a pound, wholesale. Parrine, it will be remembered, is the man who tried the floating apiary on the Mississippi river; and I want to say right here that this plan will be successfully consummated at no very distant date. It will be made a success, and my own hands itch to assist in carrying on the scheme.

In 1872 we had another severe winter, which resulted in the loss of one-half of our bees. In 1873 we sold our crop of extracted honey to Mr. Parrine at 17 cents a pound.

In 1876 the firm of Coggshall Brothers dissolved, and I did not get stocked up again until the season of 1877. In the spring of 1878 I received a check in payment for honey of $341.-70. That was the check that set me up in the bee business. I commenced to buy bees. In 1880 I had 125 colonies. The winter of 1880-81 was another hard one—the mercury being below zero for three weeks of January—and 70 per cent. of the bees out of doors were lost. Then I stocked up, and the year of 1882 was the best I have ever known for bees. My average being 200 pounds of honey per colony, one-fourth box or section honey which I sold at 18 to 20 cents; and the extracted at 8 to 10 cents per pound, wholesale.

Since that time I have continued to buy bees wherever I could do so to advantage; and here I might state that, with four exceptions, every one of my twenty apiaries represents some one who has become discouraged at bee-keeping. Up to 1894 I invariably made

D. H. Coggshall. W. L. Coggshall.

the bees pay for themselves the first year; but since that time prices of honey have gone down, without a corresponding decline in price of bees, and I have not been able to do so. Competition is increasing and yields growing lighter.

My first out-apiaries were started in 1879, at M. B. Miller's place, two and one-half miles away. At this writing I have them scattered at distances varying from four to twenty-nine miles, driving from here to look after them.

I went into winter quarters this winter with 1965 colonies in New York. My other apiaries, situated elsewhere, make the aggregate at this time, 3800 colonies. My brother, D. H., now has 650 colonies.

Groton, N. Y., March 4, 1904.

P. S.—I have five apiaries with different sized frames—bought from different bee-keepers Different frames rquire different manipulation, and that is about all the difference I see in different hives. The first requisite to success is the honey source; second, the man, and appliances third. Most of my bees are on the original Langstroth frame—the frame that Mr. L. first presented in his book—nine inches in the clear. I have six or eight apiaries in ten-fram simplicity hives, but prefer the larger size and eight frames, as there is just as much comb surface in the latter. Though this hive was not patented it was made so complicated that no ordinary carpenter could make the mitered joints. I have never bought but one such hive from the factory. W. L. C.

NEW ZEALAND.

Aparian Conditions in the Fair Isles Are Not Satisfactory.

By G. J. S. Small.

IN BEING allowed the privilege of addressing the bee-keeping community of America, through the columns of the American Bee-Keeper, I will endeavor to give an outline of how the industry stands at the present day.

In order that my readers will be able to follow and understand my writings, I will ask them to thoroughly understand the map of New Zealand, by which they will see that the country is divided into two islands (North and South), and I may here say that from the North Shore to the South Shore we have temperatures ranging from forty-five degrees in the South to 90 degrees in the North, during summer.

That being so, we have a most favored country for bees. The bee-keeper can choose what temperature he prefers, the kind of flora he would like his bees to gather honey from—whether from the native bush, white clover or both—with rainfalls and flora to add to one of the largest honey-producing countries of its kind in the world.

Then comes the question, "What makes New Zealand produce so little honey? What keeps the prices down?" I will not treat on the last question in these notes, leaving that for a proper and separate threshing out; but I intend to represent before you facts that are too true to be passed by with a smile, and hope that after reading them my readers will not jump to the conclusion that this country is no good for bees. But it is not the bees. It is the government. We have no State associations, like other countries. We have (with one exception) no bee-keepers' associations to note our rights, as there should be. We have no bee journals, no way of advising and teaching the "beginner" as to how he should manage his apiary. Our government helps poultry farming, fruit growing, vine culture and other industries, yet bee culture receives no aid from the government, though equally worthy and important; and since its introduction, in 1843, it has had an uphill struggle, making but little advancement during the past twenty or thirty years. Look back twenty years on the past history of the honey bee of our colony, and there we see the bee prospering. There were thousands of acres of native bush upon whose flora the bees in their wild state sucked the sweet nectar, thus laying up large stores for winter use in the hollows of trees. There did the early settler see during the summer months dozens of swarms pass over his head many of which he succeeded in catching; there was to be seen in the back yard and orchard of those early fathers some ten, fifteen, twenty, fifty and eighty hives of bees in all kinds of boxes, gir cases, and places where it was possible to rake up a covering for the bees and from which large returns of both cash and honey resulted.

But what do we see now? The scene has changed, and changed for the worse. If the present bee-keping community is not awakened to a sense of their duty and realize the fact that our industry is sleeping, the hopes of the few bee-keepers who still fight on against many obstacles will have their hopes crushed to the ground, from which they will never rise. I say the scene is changed. Here we see the land which once was a dark, dense forest, turned to grassy pastures, upon which white clover blooms to its utter best; but where are the bees, those pounds of honey? In many districts they have passed out, while but a few hives are scattered here and there, while very few who keep them know that thir hives consist of a queen, drones and workers. They want the honey from their hives, and to secure it means death to the bees. The brimstone pit is dug, and in this way hundreds of colonies of bees are killed annually, thus decreasing the bees of this country; and people ask why the industry is not a more prominent one

Reader, I say this sort of thing must be stopped, the modern appliances introduced; those candle, soap and gin cases must be abolished, and a revolution take place in the industry. Hundreds in our country today live in perfect ignorance of the Langstroth hive. Bee journals they have not seen. The good results that follow this industry they know not, and if this state of things exists as at present, the bee industry of this country will in another fifty years be a thing of the past. Have we not a way of placing within the reach of every person who keeps his two or three hives or his fifty hives, a way that will bring him in touch with the leading bee journals, the modern system of bee farming, and pave the way to success for him? I say that way lies through unity.

The editor, in his interesting journal, points out my wail for associations, for the furthering of the industry and raising of low prices; and it is union that will do it. The associations of other countries have helped the industry, and it will do the same here. If associations were formed, their meetings would be kept before the public. They would have as a member he who carries the years of an experienced bee-master, as well as those who are entering into the trade and seeking advice. They would obtain practical lessons on the art of managing a modern apiary; they would become subscribers to bee journals, and so keep themselves posted in the now-a-day doings of other countries. They would be helping to place the industry on a level with other countries.

Marton, New Zealand, Oct., 1903.

HONEY COMB.

Nature and Art Brought Into Comparison---Commercial Foundation vs. Natural.

By W. W. McNeal.

ONE of the prime beauties of honeycomb, wholly constructed by the bees, is the wonderfully superior supporting power. Frail and delicate to the eye as the flowers from whence its burden of delicious sweetness is derived, 'twould seem to be inadequate to the purposes for which it was made. Delightfully fragrant, crisp to perfection and white as the driven snow; yet these very essential qualities are not more desirable than that of perfect freedom from all tendency to sag. No amount of honey the bees can ever store in it will cause it to yield one particle. An overheated condition of the hive will cause the comb to melt down, or a sudden jarring of the hive may break the comb in two; but it will not sag.

In the design of honeycomb there is a radical departure from the principle of construction employed in building a house, wherein a perfectly upright position of the walls gives the greatest support to the structure obtainable. Honeycomb beng a suspended structure, the cell walls must necessarily be of such form or shape that will give substantial support while overcoming their own tendency to elongate, there must be an equal distribution of the weight of its lading, not permitting any part of the comb being taxed beyond endurance. The embodiment of that feature—which we do find to exist in honeycomb—makes the system a very fitting one for the purposes of its creation. It is, therefore, a practical system, too, and one that honey producers cannot well afford to ignore in the use of comb foundation. Taken in any other way, the power of the comb to resist the specific gravity of honey is greatly lessened.

There is not a vertical wall in the make-up of honeycomb, even the septum that forms the bottom of the cells is shaped to assist in overcoming the tendency to sag. The effect of adjusting the comb in all its parts so that each wall will contribute in an equal manner to the support of its neighbor, makes the structure exceedingly strong, and enables it to remain firm and true under all conditions of natural usage. Now, in the manufacture of comb foundation, or rather, in the manner of using it, one-third of the cell walls are vertical walls, thus breaking the symmetry of the comb and resulting in an abnormal lengthening of those walls. By losing their true relationship with the surrounding walls, they no longer possess the strength of the union of all the walls, but that of a divided structure. The supporting power of the comb is, therefore, no greater than that represented by the vertical walls, for nothing is stronger than its weakest part. The fact of the comb being suspended in the hive positively forbids the use of any plan or mode of construction wherein a true vertical line or wall would form any part of the comb. If you will get a sheet of comb foundation and hold it up before you in the manner in which it is customarily used in the comb-frames, and then turn it up the other way, you will see the difference at once. By reversing the order of construction as it exists in natural honeycomb, the vertical walls of comb foundation serve best to promote any tendency to sag that combs built from refined wax may have.

I hardly think that bees ever arrange the size of the worker cells for the rearing of drones. Were they guilty of that misdemeanor under certain conditions, we should expect, at least, to see them stick to the regulation way of rearing their drone-brood along the bottom edges of the comb and not at the top, where honey is supposed to have the right of way. But since that feature is conspicuous by its absence in hives of natural-built combs, we conclude that the enlarged cells in the upper half of combs built from comb foundation are due to deficient sustaining power of those combs. However, bee-keepers would better look into this matter fully, and ascertain, if possible, to what extent the sagging of comb foundation is directly attributable to having departed, in the manufacture of it, from the true architectural style of honeycomb.

Commercial comb foundation saves the bees much time in building their combs, for a tremendous large force of them can begin the work of completing it, at the same time. This tends to increase the yield of honey, but it adds nothing to the quality of honey. Ready-drawn combs are even more pernicious in that respect, for the temptation to store raw or partially ripened honey in them is, accordingly, that much greater to the bees. The results are that honey thus obtained is not so wholesome, is not so easily assimilated by the human system, and it will more surely granulate. The natural process of building comb and storing it with honey is more tedious, but it is necessarily so that the transformation of nectar might be complete.

Yes, Brother John Hardscrabble, you are always buttin' in — always warbling that ginger-butter-and-'lasses melody of yours. Surely you must be subject to hallucinations more grievous than a nightmare. I am really surprised that you made even a tolerably fair guess as to my meaning wherein I thought to state, p. 262, that I had observed that bees usually accomplished more, when engaged in comb-building, if they were free to extend the combs downward instead of laterally. And I'll sandwich in the assertion right here that not only is a downward course more favorable to a vigorou prosecution of the work, but the bee manifest more enthusiasm in the performance of it. The picture of yo and the "purps" is good; it is real cut of you all. But I don't just like th combination, Bro. John, for it sorte instills into one's mind a suspicion tha a man who is willin' to be caught wit a bee-hive under one arm and a do under the other, is hunting trouble.

Now, in all sobriety, Bro. John,

don't believe you ever saw a snow ball in its native haunts, or you would not speak so disparagingly of frames deeper than the Langstroth for wintering bees. The old-fashioned straw skep and its sister hive, the box-hive, is far superior to our modern hives for the purpose named. That fact is so plain that he that runs may read. Give the box-hive colonies the same amount of protection that colonies in frame-hives usually receive and they will make the others look like bumble-bees' nests in comparison at the opening of the honey harvest. Yet, I would not persuade anyone against his will in this matter. I merely wish to point out to the reader what I believe to be the surest and cheapest way of securing workers for the early blooming of the flowers. That which has stood the test of centuries is no theory, Deacon, and you will pardon me for re-asserting the fact herein.

If any of the advocates of shallow hives don't know how to proceed with the management of a big swarm of bees in a box-hive at the opening of the season, why don't he say so, and not berate those hive conditions which give him the largest number of bees at a time of year they are of the greatest possible value to him. The work of "driving" is so easily done that swarms may be taken from box-hives at the proper time and hived in shallow-frame hives wherein may be had every facility for rapid dispatch, comfort and art in the production of honey. The swarms being returned to the parent hives at the close of the season gives one the best there is in both systems—the old and the new. However, let not any one dare to practice the method who is not willing to be frowned upon by the progressive (?) element in this grand old honey pursuit.

Wheelersburg, Ohio, Jan. 12, 1904.

Wholesale methods of mating queens with inexpensive apparatus and requiring but a few bees, practically as enunciated for several years by "Swarthmore," are becoming quite general—more so, indeed, than the name of the originator of the idea in connection with discussions of the principle.

FLIES, NOT BEES, ON CHRYSANTHEMUMS.

"Yellow Blood" in Carniola---Other Interesting Facts.

By Frank Benton.

THE PLEASING picture on page 52 of the Bee-Keeper for March, 1904, caused me to smile at first sight, not altogether because the picture was pleasing, but partly also at the mistake of the editor, who had inserted the picture as an illustration of "bees working on chrysanthemums." The fact of the matter is, that even the most indistinct-appearing of the insects on the chrysanthemums can be readily recognized as the representation of a fly and not a bee. There is not among the whole lot a single bee! The pose of each insect, the manner of spreading its wings, the short, stumpy abdomen, the head, which (viewed from the top) is slightly pointed, the probosis (where visible), and the truncated lower portion of the head (the jaws), as well as, in general, the look or habitus of the whole insect, stamp it at once as a fly of the family Syrphidae. The picture was shown to several entomologists here at the Department, some of them workers in the groups involved, and all agreed with me in calling the insects flies and not bees. They are undoubtedly the well-known drone flies, or chrysanthemum flies, the most common species of which is Eristalis tenax, which Baron Osten Sacken believes he has identified as the so-called Bugonia* of the ancients, and which serves to explain the supposed oxen-born bees of olden times. All will recall the directions given by Aristotle, Virgil and other classic writers for the production of bees from the carcasses of domestic animals. The name drone fly was given to this insect because of its great resemblance to the drones of our honey bees, and it has frequntly also been called chrysanthemum fly, because it appears late in the season and visits chrysanthemums freely for the pollen furnished by them, the adults being pollen feeders. The fly is credited with effecting to a greater or less degree the pollination of chrysanthemum blossoms, and the plan of introducing it into countries where chrysanthemums do not seed has been seriously discussed.

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*"On the so-called Bugonia of the ancients, and its relations to Eristalis tenax." By C. R. Osten Sacken. Bullettino della Societa Entomologica Italiana, Anno XXV, 1893.

A very curious belief exists in the province of Carniola, Austria, concerning this fly. The old bee-keepers there state that the yellow which constantly crops out in breeding these bees is due to a cross between these flies and the honey bees, the flies taking the place of our drones. Some of these old bee-keepers have even told me that they had this tale from their grandfathers! I believe I quoted this popular belief some fifteen or more years ago in the British Bee Journal, when the question of yellow on Carniolan bees was under discussion. Some of tne correspondents of that journal had been disposed to think that the yellow of Carniolans was due to my having introduced eastern blood into the province and mixed it in my breeding of Carniolans. But this current belief regarding the yellow of the race is itself evidence that the yellow had existed in the province long before my own time or that of the oldest people of this generation. Likewise my own explanation of how the yellow element came to be mixed in with the gray of the Carniolan race, namely; through the introduction of yellow bees from the provinces adjacent to Italy, should have been accepted as evidence to clear me of the above imputation.

But to return to our flies. A brief explanation of how they breed may be of interest. The eggs are laid in putrescent matter and the larvae develop where liquid or semi-liquid material is to be found. These larvae are known as rat-tailed larvae, from the fact that the posterior segments of the body are drawn out to form something which resembles a tail, and which, in the aquatic life of this larva, is useful to the developing insect, as the breathing spiracles are located in this extremity, and the larva can therefore obtain air by leaving the tip of the tail-like appendange above the surface of the liquid while the body is immersed. The larvae, if taken out and dried, present a mouse-gray appearance, and look very much as would a mouse an inch long crouching with its feet folded under its body the total length of the larva, including its tail being about equal to this. The mottled flies issue the latter part of summer or early in autumn just as the chrysanthemum blossoms are appearing, and being pollen feeders these flowers the most available for them at this season of the year, although they likewise visit asters, goldenrod, etc. The coppery or golden-yellow blotches on the bodies of the adult drone flies, together with their generally bulky form and large heads, give them such a general resemblance to drones of our honey bees, that many people have been deceived by them.

Those who were present at the famous Utter trial described in Gleanings in Bee Culture for 1900 and 1901, will recall the fact that as a witness for the National Beekeepers' Assocaiation I brought with me a small case of insects which the lawyers for the defence passed to the witnesses on the side of the prosecution to see whether they could really identify bees when placed side by side with insects of simnar appearance, and the same box was later passed to me when on the witness stand. This case contained workers, queens and drones of our Apis mellifera, together with some of the very drone flies which are shown in the illustration we have under discussion, and also some related flies. The result of their introduction in the trial was to cast a reasonable doubt upon the ability of the prosecution to distinguish bees from true flies, and therefore their ability to prove positively that bees were the cause of the alleged damage. Thus these same drone flies have at least in one instance been of some use to bee-keeping interests.

We can pardon the mistake in regard to the picture on page 52 in consideration of the frequency with which these flies have been mistaken for bees, and the fact that some of the skilled bee-keepers who were also witnesses at the Utter trial, when shown (privately, before the trial) the case of insects described above, did not succeed in avoiding mistakes in all instances in the identification of them as bees or flies.

United States Department of Agriculture, Washington, D. C., March 10, 1904.

WAX PRODUCTION IN ARGENTINA.

Transforming Cheap Honey Into the More Readily Marketable Commodity.

By Adrian Getaz.

CONSIDERING the low price of dark extracted honey and the increasing value of the wax, the question of producing wax instead of honey has often been raised. The last number of the Apiculteur contains a contribution of Prof. Brunner from Cordoba, Argentine Republic, in which he describes the method he follows for producing wax in a locality where the honey is quite dark and difficult to sell.

The hives used have 22 frames, 18x11 inches and a super of same number of frames, only six inches deep.

Early in the spring, that is, as soon as the weather is quite warm and no more cold snaps are expected, all the frames not having brood are taken out and the combs melted. The wax is sold and the honey kept for feeding. A partition is inserted on each side of the brood and the frames are covered with a cushion, the roof being constructed so as to leave room enough for that purpose.

When the swarming season arrives all the queens more than two years old are replaced by some raised the previous season, and wintered in their nuclei. Two days later the frames taken out are returned to their hives. Only one-half-inch starters are used. A large feeder containing about 40 pounds of honey is placed on each hive, and feeding is begun immediately and kept up until the fall. As much as the bees will take is given, no matter whether there is any honey brought in from the field or not. Every week the combs are cut out from the frames and melted and this process continues until the fall, when the bees are allowed to build up for the winter or rather the ensuing year.

About the middle of the summer, sooner or later, the bees refuse to work any more on that principle. Then the supers are put on, with only small starters in the frames, and (what looks singular to me) the bees resume work at once. Prof Brunner has followed this method several years. It takes, all told, 68 pounds of honey to produce ten pounds of wax. The honey there (that is, the dark honey used for that purpose), is worth 6 cents per pound and very hard to sell at that. The wax is worth 54 cents and sells very readily. Furthermore, the barrels or cans necessary for the honey are quite high. The cost of transportation is considerable, which makes quite a difference in favor of the wax, since there is less weight.

So under such conditions Prof. Brunner finds a large profit in buying dark honey from the farmers and turning it into wax.

ADVANTAGE OF STRONG COLONIES.

Mr. Pincot, one of the leading French apiarists is in favor of keeping the colonies as strong as possible, in order to get the best crops of honey. By that he means keep them strong all the time. Not merely pushing brood rearing for a few weeks between the end of the winter and the beginning of the honey harvest, and then reducing brood rearing to save a few pounds of honey; but he wants brood rearing to be kept up throughout the season, even if it is necessary to feed.

He says that the amount of the brood raised is in proportion of the number of bees present to take care of it, no matter how prolific the queen might be, and that if the colony is not strong right at the opening of the spring, it will never get to its full strength because on account of the insufficient number of bees, the brood rearing cannot be carried on to its full capacity.

And he gives facts and figures in support of his opinions. One of the facts quoted is worth reproducing here. One of his neighbors had seven swarms within a few days, each weighing four or five pounds. Mr. Pincot asked him, as an experiment, to hive the last two together. The man consented. The swarms hived singly, made their winter provisions (about 35 pounds each) but no more. The double swarm not only made its provisions, but gave 90 pounds of surplus. Furthermore, the following year (1903), the double swarm was stronger than the others, and gave much more surplus.

In his own apiary Mr. Pincot will not hive a swarm singly unless it weighs about 8 pounds. He does that with both natural and artificial swarms.—From the Rucher Belge.

Knoxville, Tenn., March 11, 1904.

RESULTS OF SOME EXPERIMENTS IN WINTERING.

By Arthur C. Miller.

I HAVE long contended that the successful wintering of bees out of doors was dependent on the condition of the colony rather than on the amount of protection afforded. I have frequently enunciated the necessary conditions as a populous colony of young bees and an abundance of stores supplied early enough to enable the bees to properly ripen them and store them as their instincts dictate. I base my contentions on the results of many years of extensive experiments, coupled with a painstaking analysis of the results.

Last fall I started some experiments along extreme lines, details of which follow. Eighteen colonies were selected, six of which were rather weak, six medium and six strong. Some of each type had an abundance of ripe stores, some had many of their combs only partly filled and capped. All were in unprotected hives, none of them having even the tarred paper wrapping which I have advocated. All hives were of the divisible brood chamber type, with frames five and one-half inches deep. Some colonies had two sections, some three and one had four. To this latter I wish to call particular attention. It was a Bingham type of hive, with end bars of frames one-fourth inch thick and side panels of the same thickness, so the sole protection afforded the bees was one-fourth inch of pine wood. Also it should be noted that the brood nest was cut by three of those "fatal, horizontal spaces." The colony was a medium good one, with plenty of ripe stores.

All hives had flat covers, some air spaced, some with "paper and cloth" top. All entrances were wide span, i e., 14 inches by one-half inch. The winter has been the worst on record, and from the most reliable sources. The temperature held low with hardly a break, dropping at one time to 26 below zero and keeping close to zero for a week at a time. Over five feet of snow has fallen, but at no time did it drift enough to protect the hives, which are on stands a foot above the ground.

Bees flew early in December and not again until early in March, and then only once for a short time.

As to results: All of the weak colonies died, apparently froze to death; which is to say, the clusters were too small to maintain the necessary heat. All the medium colonies succumbed, some from starvation, some from diarrhoea. One of the big colonies also went from the latter trouble. Quite a proportion of their stores were unsealed and the honey shows signs of fermentation. The remaining five colonies are strong and healthy, and with —in all but one case—honey enough to carry them through until the new crop. The colony in the Bingham hive is in perfect condition. According to most theories concerning bees under such conditions they should have died a most noisome death. But they didn't.

From the results of the experiments I am still more firmly satisfied that my theories, as to what constitute essentials for safe wintering, are sound and are fully supported by facts. But I also believe that it is not the best of economy to subject bees to such extreme conditions for the consumption of stores is too great. Had those colonies been protected with tarred paper, they would have been warmed enough on the sunny days to have materially lessened the consumption of honey. I have observed that in my experiments with tarred paper.

To summarize: I believe we may safely and profitably dispense with expensive double walled hives and troublesome packing and use any type of single walled hive and a black wrapping, provided we only put into winter quarters strong colonies, with sound stores supplied early.

The experiment was costly, but it paid.

Providence, R. I., March 16, 1904.

I have taken a great interest in The Bee-Keeper, and greatly enjoyed reading it. L. J. Quantrell.

THE DICKEL THEORY.

A Reply to Mr. Horn.

By F. Greiner.

ON PAGE 35 Mr. H. E. Horn says of the Dickel theory: "The importance of the theory lies perhaps in the fact that true and absolute inbreeding becomes an easy possibility no matter, ... etc." The promoter of the theory has never made any claim in this direction so far as I am aware of. There is, of course, a closer relationship between the queen and the drone of the same colony, if both have the same father as well as mother, than when both have only the same mother in common, and the one of the two has no father at all. Otherwise any one would meet with the same difficulties in accomplishing close inbreeding than when seen in the light of other theories.

The only way, as I see it, to be reasonably sure that a queen meets a drone of the same hive would be, to rear a queen so early in the season when there were no drones in the apiary. The colony rearing the queen would also rear a few drones, which the worker bees could do, from eggs or very young worker larvae in the hive. According to Dickel all eggs of a normal queen are alike in every respect. This is the whole gist of the Dickel theory. For the practical bee-keeper it matters nothing whether Dickel is right or Dzierzon, although I think it is an interesting subject.

Naples, N. Y., Feb. 29, 1904.

SELFISHNESS OF BEES.

(From the Irish Bee Journal.)

Dear Sir—In the American Bee-Keeper for January, 1904, I note an extract from your paper, in which you ask, "When did 'parental instinct' first spell selfishness?" I might ask you to define "parental instinct" and explain its cause. Perhaps I can help you. This "instinct" is the result of stimuli. Under normal conditions a parent animal can no more avoid supplying its young with food than it can avoid breathing. But change these stimuli ever so slightly, and the fond, self-sacrificing parent calmly abandons its offspring or deliberately devours them. From the customary point of view, it was quite natural for you to question my remarks on selfishness of bees, but if we are to advance in the study of the life of the bee we must dig deeper than we have heretofore. If we are to advance much farther in practical bee-keeping, we must needs first advance in a knowledge of the causes of various actions of bees. I will not mind your criticsm at all if it serves to cause even one person to look deeper. Professor Jacques Loeb's book on "Physiology of the Brain" (printed by John Murray, London) may be of assistance to you in getting a new view of first causes.—Arthur C. Miller, Prov. R. I., U. S. A., Jan. 15th, 1904.

(It is a pleasure to merit the foregoing letter from one of American's brightest students of apiculture We ventured to suggest that, with such views as those enunciated in his article in the American Bee-Keeper, Mr. Miller was "likely to feel lonely." Therein was no discourtesy. Lack of appreciation is a penalty which must often be paid to genius. Deep thinkers must needs take with equanimity the criticism of the vulgar mind. No, we had not forgotten our Loeb. But when Loeb has spoken, is it certain the last word has been said? And, in an animal, "forced to orient itself toward the source of stimulation," and led, without will of its own, either toward the source of the stimulus or away from it, must we, of necessity, see selfishness—intensely personal aims, and regardlessness of the happiness of others? Is breathing (which cannot be avoided), an act of selfishness? Would not the term "self-love" be more appropriate: or must we, indeed, lose our old respect for the little insect which has taught so many useful lessons? We should be very pleased to have an expression of Mr. Miller's views on this point, agreeing with him, as we do, that a knowledge of the cause of the various actions of bees could but tend to further advances in practical bee-keeping.—Ed.)

The bee-keepers' supply factory of Gus Dittmer, Augusta, Wis., was burned Feb. 20th. The hustling proprietor, however, is probably taking care of all orders promptly by this time.

THE

Bee-Keeping World

Staff Contributors: F. GREINER and ADRIAN GETAZ.

Contributions to this Department are solicited from all quarters of the earth.

RUSSIA.

Illustr. Bztg. says this about bee-keeping in Russia: It is frequently said that the bee-keepers of Russia are 100 years behind the times, but this is anything but true. There are many up-to-date bee-keepers, many of them favoring American methods and using American hives. Five or six apicultural journals disseminate knowledge as to bee-keeping. Conditions for honey production are more favorable in the South and East than they are in Germany, although there are sometimes years of failure, as, for instance, 1903. Editor Kandratjeff reports that bees did not gather their winter supplies in many places.

ABESSINIA.

It is said of Abessinia that honey is as plentiful there as "dirt." Bees are everywhere. Set up an empty hive and in a week's time it will be occupied by bees. It is an easy matter for the Abessinians to find wild bees. A certain bird of the size of a swallow, called honey-bird, shows the way. The bird is always rewarded by a piece of the honey and brood. (From Praxis dev Bzcht.)

BELGIUM.

Soldiers receive in this country rations of honey during hot weather. (Bienenvater.)

SCOTLAND.

The bee-keepers in Scotland, it is said in Schleswig-Holstein Bztg., prefer a honey-press to the extractor for the reason that a large part of their honey is gathered from the Erica, and this honey is so thick, that it cannot be extracted successfully. Bee-keepers in many parts of Germany are similarly situated. The only way to obtain this honey is by heat or squeezing.

GERMANY.

A large portion of the German bee-keepers carry on the business on a small scale; if they did not they would not put up with such implements as we understand find ready sale among them. One of these implements is described and illustrated in the Deutsche Btzg., viz.: a honey extractor without can. It seems like a mere play thing; during the time it is not in use as an extractor it may be used as a flower-stand. Their wax-presses may be used as fruit-presses.

"Make your own comb foundation from pure German wax. This is important, and is the only guarantee to get good serviceable foundation," says Illustr. Btzg. (That speaks bad for Germany.)

Worker-brood developed in cells with a glass side, is what F. Ebster reports in Leipz. Bztg. It came about accidentally. He had a single comb observation hive stocked up with a good strong nucleus colony. The hive was made a little bit too wide, and yet not wide enough to justify the bees in building a second comb. They finally constructed a half-comb, using the glass side as the mid-rib. A part of the comb was so constructed as to make the glass wall answer as one side of a cell or cells. These cells were preferred by the queen to those which were built at right angle against the glass. The laying of the egg, the behavior of the eggs before hatching, i. e., changing their angle to the bases, the hatching out of the larvae and the nursing of them from beginning to end, then the changes during the pupa stage, all this could be easily and plainly watched. The same hive with comb was used several seasons, but after the second season the process of development could not well be seen on account of the cocoons, which were left in the cells, and the glass was scraped off when the bees rebuilt the comb.

Some interesting questions are asked by Kellen in Leipz. Btzg., which are not yet fully answered. American bee-keepers might take a hand in helping to clear the mist.

First question: Why is it that bees will live and work in the dark?

Second question: Queen-cells are built perpendicularly, worker-cells and drone-cells horizontally. What are the reasons?

Third question: Why the shaking and vibrating of the abdomen of the workers so often seen inside the hives?

Fourth question: How long can eggs be kept in good condition?

Fifth question: Queenless bees, do they prefer to construct queen cells over larvae or eggs?

Seventh question: Are the drones reared from eggs laid by fertile workers virile.

Eighth question: How much honey is used up by the bees to produce one pound of wax?

Alfalfa clover produces honey only in certain sections in Germany. In other parts the bees ignore the bloom entirely.

The application of warm honey three times each day for four successive days is said to cure caked bag in new milch cows.—Die Biene.

FRANCE.

Mr. Conterel, the apiarist of Model Apiary of Barbast (France), prefers the automatic smoker to the ordinary one. The one invented by Mr. DeLayens, he thinks, is the best. Perhaps some of the readers of this paper do not know exactly what is meant by an automatic smoker. It is an instrument with a compartment for the fuel and another with a clock movement. The clock movement runs a fan which does the blowing. The blowing is not very strong, but continuous. One winding runs the movement half an hour. The instrument is placed on a corner of the hive (after the cover is off) and blows the smoke horizontally over the top, keeping the bees quiet, and striking the combs as they are taken out. It also keeps off whatever robber bees might try to pounce in. The matter of fuel is also discussed. I don't think that the readers of this paper would be able to guess what fuel Mr. Conterel prefers. It is nothing more or less than cow-dung, well dried. I think that in our Western States such fuel is used for other purposes under the name of buffalo chips. As a smoke fuel it is used in a portion of France (the Landes) in preference to all others, though wood is plentiful there. The smoke produced is abundant, effective, and has the advantage of not affecting the eyes of the operator.—From the Revue Eclectique.

A question recently discussed in the European bee papers was the influence of the heat on the production of wax and general welfare of the colonies. To arrive at something definite the Apicultural Society of the Meuse requests its members to experiment on the subject. Five prizes of twenty, sixteen, twelve, eight and four dollars are offered to those who will make the best and most conclusive experiments. The lines to be followed are to compare hives of ordinary construction (single walls) with what we would call here chaff hives. The walls of these must be four inches thick. The supers and covers must also be constructed on that principle. Either permanent packing, or outer cases with movable packing can be used. The two classes of hives are to be subdivided. Some will receive only starters, others sheet of foundation, and others ready-built combs. All will be worked for extracted honey. It is requested that enough supers shall be added (if necessary) so the bees will not have to slack or stop work for lack of room. One of the objects in view is to find out if it would be more profitable to melt the combs than to return them to the bees, considering the increasing value of the wax. The production of comb honey is not considered as in Europe the difference of price between comb honey and extracted honey is very small.—From the Revue Eclectique.

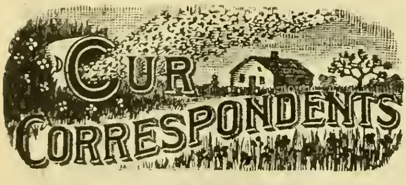
ITALY.

In the Apicoltore, Mr. Th. Marre publishes the following table concerning the growth of the bees:

	Queens.	Workers.	Drones.
Age of the eggs (in days) when they hatch usually	3	3	3
Under exceptional circumstances, when the heat is insufficient		8-10	
Numbers of days during which the larvae received a first-class jelly	5	3	4
Number of days during which they receive coarse jelly	None	3	2½
Total time between the deposition of the eggs and the time the eggs are sealed	8	9	9½
Time spent by the larvae to spin its cocoon	1	1½	3
Time of apparent rest	1	1½	1½
Time of transformation into nymph	3	3	3
Time of transformation of the nymph into perfect insect	3	6	7
Total number of days spent in the cell	8	12	14½
Duration of development from the laying of the egg to the time of emerging from the cell under ordinary circumstances	16	21-22	24-25
In very favorable circumstances	15½	19	24
Under adverse circumstances, chiefly the lack of sufficient heat or too small population	22	26	28

Age at which the worker begins to fly before the hives, counted in days from the hatching, or rather emerging from the cell	4-7
Age at which she begins to gather nectar under ordinary circumstances	13-16
When forced to do so by want of honey or old bees	5-8
Time for the queen to attain perfect maturity after she has emerged from the cell	1-2
Her age when she goes out to mate, in the spring of the year	4-6
In the fall	6-7
Time between mating and beginning of laying under ordinary circumstances	2-3
Time between the issuing of the first swarm and the going out of the young queen to mate	10-13
Time between the sealing of the first queen cell and the issuing of the first swarm	1-2
Time between the issuing of the first and second swarms	8-11
Between the second and third	3
Between the third and fourth	1-2

Some of the above figures have never been given before, as far as I know. Others are slightly different from those generally admitted.



Millwood, N. Y., March 12, 1904.

Editor American Bee-Keeper:

The winter of 1903-'04 will go down in history as the most severe in recent years. As to its effects upon the honey bee, it will be soon found out by a great many, to their great surprise and disappointment. Fully one-half of the colonies of nearly every apiary in this vicinity are dead, and in a great many others the results are even worse. I have lost sixty per cent. of my bees. Upon making a thorough examination I find the frames well stocked with bees and a bountiful supply of honey. They seem to be frozen to death in great clusters between the frames. The bees are mostly kept in sheds made so as to open to the south, which affords shelter from storms and also cold winds. H. Augustus Haight.

Hopkinton, Iowa, March 8, '04.

Editor Bee-Keeper: As bees in this part of the State are mostly all wintered in-doors they have escaped the severe winter so far, and I think the winter losses will be small.

Warren H. Winch.

Angleton, Tex., March 8, 1904.

Editor Bee-Keeper:—Enclosed find 35 cents for a trial suscription to The Bee-Keeper. I liked the sample copy very much.

Bees in this part of the country are in very good condition, for this time of year. (Plenty of pollen and some honey are coming in, and brood-rearing is going orward at rapid rate. J. D. Yancy.

Salina, I. T., March 8, 1904.

Editor American Bee-Keeper:

Dear Sir—We've had a very mild winter—no snow. Bees never wintered better. Loss will not exceed one per cent. Needing rain.

J. T. Hairston.

Leota, Miss., March 21, 1904.

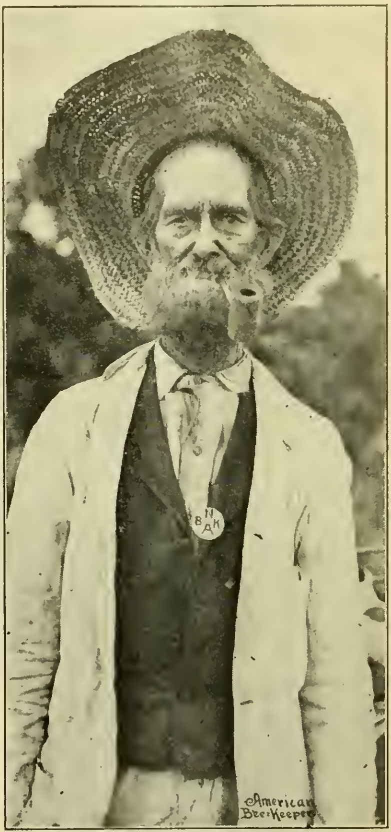
I report that my bees wintered well on their stands. I went into winter quarters with 146 colonies. I inspected every colony the first week in March and found brood in every colony except three. Tho. Worthington.

Rescue, Tex., March 20, 1904.

Editor American Bee-Keeper:

Having noticed a request in the March number of The American Bee-Keeper to those having had experience with Cyprian bees to report as to amiability, viciousness, etc., I will say: Away back in the 80's, when the Cyprians were first imported to the United States by D. A. Jones and Frank Benton, I sent to B. F. Carroll, of Dresden, Tex., and got some queens of the "new races." They proved such wonderful workers in my hands I set to work and Cyprianized my small apiary, then of about twenty-five colonies of black and Italian bees. They proved to be extra good workers with me, but were the most vicious bees I ever had anything to do with. So after trying them for three years, I reluctantly gave them up. I admit, I hated to part with them, as I found them the best of honey gatherers, great breeders, and, in fact, I believe they were just suited to this hot, drouthy climate of Texas; but their extreme vicious disposition was too much for me. On several occasions my wife had to keep the doors of our house closed for half a day at a time to keep them out, when I had gotten them thoroughly aroused. I hope the Cyprians of the present day are not as vicious as those of twenty years ago; yet if pure, I should expect little change in them. If no one ever handled the bees but myself, I should not object so seriously to their stinging; yet I cannot say I enjoyed it by any means. L. B. Smith.

DEACON HARDSCRABBLE DEAD.



The Deacon's Last Portrait.

The last of the series of Hardscrabble letters, which have been so popular with our readers during the past two years, appeared in our February issue. The following brief note explains their non-appearance recently:

American Bee-Keeper:—Uncle John died Jan. 27th. He thought a heap of The Bee-Keeper. I will send his last picture—taken in October.

Eben Hardscrabble.

THE AMERICAN BEE-KEEPER

PUBLISHED MONTHLY
THE W. T. FALCONER MANFG. Co.
PROPRIETORS.
H. E. HILL, - EDITOR,
FORT PIERCE, FLA

Terms.

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Subscribers receiving their paper in blue wrapper will know that their subscription expires with this number. We hope that you will not delay favoring us with a renewal.

A red wrapper on your paper indicates that you owe for your subscription. Please give the matter your early attention.

Editorial

Although we carefully mail The Bee-Keeper each month to each subscriber on our list, copies are sometimes lost in the mails. Reports of any such instance addressed to the Florida office will have careful and immediate attention.

The Pennsylvania State organization of bee-keepers is progressing very satisfactorily to the promoters.

The breeder must have thoroughbred stock, but the number and color of bands count for nothing in the apiary worked for a honey crop.

One of the most extensive bee-keepers in America recently remarked: "I have never known foul brood to flourish where bees had access to salt."

The Board of Health of San Francisco, Calif., is in pursuit of the honey adulterators who have been plying their nefarious schemes in that city.

The Rocky Mountain Bee Journal has enlarged to twenty-four pages and cover and increased its subscription price from 50 cents to $1.00 a year. It's worth it.

The Review says a New York bee-keeper has devised a means whereby swarming preparations may be recognized without opening the hive; and the scheme is to be patented.

The Pacific States Bee Journal says: "W. H. Pain, of Honolulu, H. I., produced 300,000 pounds of extracted honey from 200 colonies of bees, last season." That's not so bad—an average of three-fourths of a ton per colony (?).

In this number we are pleased to present pictures of the Coggshall Brothers, of Groton, N. Y. W. L. is seen at the right and David H. at the left in the picture. The photo was taken last January, near the apiary of the writer, in Florida, as the gentlemen were investigating local apicultural resources. In connection with the article relative to Mr. Coggshall's apicultural career also published in this issue, we think this picture will prove of exceptional interest to our readers.

PUSHING, PLUCKY AND PROGRESSIVE BEE-KEEPERS.

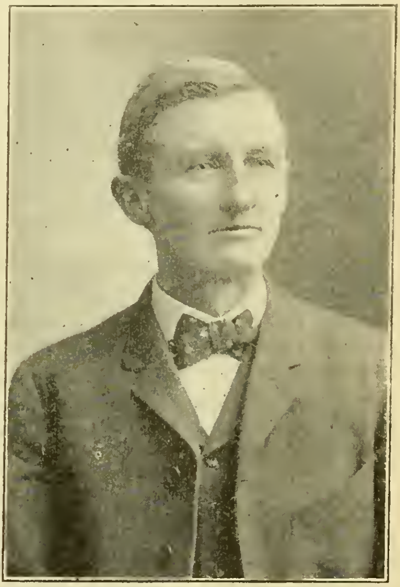
In our February issue we published the full text of Ohio's new foul brood bill, an outgrowth of the agitation effected by the Hamilton County Bee-Keeperes' Association, and which was drafted by A. E. Painter, Esq., of Cincinnati, and presented by Representative D. R. Herrick.

The Hamilton Association is fortunate in the possession of several eminently capable gentlemen, not in matters pertaining to bees alone but in affairs relative to the science of government and the somewhat mysterious realm of law. They are progressive and energetic wrokers in every cause deemed worthy of their efforts, and there is no doubt that the ultimate results of their labors in behalf of apiarian matters in Ohio will be invaluable to bee-keeping interests of that State. Of such is composed the little group herewith presented, which waited upon the agricultural committee of the House of Representatives at Columbus, Feb. 4, and there labored faithfully for the Herrick bill.

Bee-Keepers at the Ohio Capital.

Beginning from the left to the right: First, Mr. R. L. Curry, one of the pioneers in Hamilton county bee-keeping. Mr. Curry has been a bee-keeper for the past forty years, is well versed in science, and has faith in the M'Evoy treatment for foul brood, which time and again he has put to a severe but successful test.

The second, Mr. C. H. W. Weber, of formalin gas fame.



A. E. PAINTER, ESQ.
The scholarly attorney, of Cincinnati, who drafted the new Foul Brood Bill.

The third, Mr. John C. Frohliger, the orator of the little crowd, an able bee-keeper and a queen breeder of no little note.

The next, Mr. D. R. Herrick, republican representative of Hamilton county, and a counsin of the present governor of Ohio. By the way, Mr. Herrick is an able bee-keeper, years ago having been a queen-breeder. He had the misfortune to lose his bees by foul brood.

The fifth is Mr. E. P. Rogers, a man who can talk to the point, and is a good counselor.

At the extreme right is seen Mr. Fred W. Muth, the wholesale honey dealer and tireless toiler for beedom's cause.

At this writing the bill has passed the house of representatives without a dissenting vote, and is now in the hands of the agricultural committee of the senate. Definite information as to its fate will be obtainable within a few days.

Bee-keepers frequently report having secured "three-fourths," "one-half," "one-third" or "one-fourth" of a crop of honey. Yet no one ever seems so fortunate as to get a "crop and a half." How much is a "full crop?"

The Southland Queen reprints Mr. Poppleton's article from The Bee-Keeper, on "Bee Paralysis," and erroneously credits it to Arthur C. Miller. The Queen appears to become badly "mixed" when it undertakes o do or say anything in regard to this particular malady.

If the past severe winter proves disastrous to bees throughout the Northern States, as appears probable, and but slight or no competition from Cuba and California, as a result of the short crops there secured, this season, it will behoove those having bees to make the best of opportunities. Present conditions indicate a ready market for the crop of 1904.

Mr. E. M. Storer, an old Florida bee-keeper who has been operating during the past two or three years in Jamaica and Cuba has returned to the Florida coast and purchased another apiary. Notwithstanding the recent reports of the entire failure of the Cuban honey crop this year, Mr. Storer advises us that he has had in charge 900 colonies situated near Bermeja, from which he has taken this season ten thousand gallons of honey and 1,100 nuclei. It is conceded, however that the Cuban crop is very short.

The picture of "Bees Working on Chrysanthemums," shown on page 52 of our last issue, has elicited a number of interesting comments from our studious readers, and we have pleasure in presenting in this number an explanatory letter from Prof, Benton, upon the subject. When attention is called to the distinguishing points, the difference is quite apparent, indeed, even in a picture, though the general appearance is that of black bees clambering hastily over the flowers, rather than "working." Mr. Arthur C. Miller, of Rhode Island, was the first to detect the "flies" and report. We do not know whether Apis mellifera is ever found upon chrysanthemums, or not; though we believe some of the apiarian writers have reported that they sometimes are. May be it was Dr. Miller.

A NEW BEE JOURNAL.

The apiarian craft is to have a new organ, due to appear this month. It is to be published by W. H. Putnam, River Falls, Wis., and will be known as the Rural Bee-Keeper.

HONEY AND BEESWAX MARKETS.

Buffalo, March 10.—Buffalo honey market has been very unsatisfactory all winter, and continues so; yet a liberal amount can be sold at low prices. The supply is moderate and the demand. is more so. We quote our market today as follows: Fancy comb, 12 to 13 cents; other grades 7 to 10 cents. Extracted, in light demand at 5 to 7 cents. Beeswax, 29 to 30 cents.

Batterson & Co.

Milwaukee, March 10.—The demand

is not all that we would desire. It should improve, and we think as spring opens it will. Supply is very good. We quote today: Comb, 11 to 13 cents, as to quality and quantity. Extracted, bbls., 6 to 6 1-2 cents; cans, 6 1-2 to 7 1-2 cents. Beeswax, 28 to 30 cents. A. V. Bishop & Co.

Cincinnati, March 4.—The demand for honey is somewhat brighter than it was in the past sixty days. We continue to offer Amber Extracted in barrels at 5 1-2 to 6 1-2 cents, according to quality. White clover extracted is a drag on the market at 6 1-2 to 8 cents in barrels and cans. Comb honey seems to be reviving at 13 1-2 to 15 cents for fancy. Beeswax is wanted at 30 cents per pound delivered here.

The Fred W. Muth Co.

Kansas City, March 14.—The demand for honey is somewhat limited, while the supply is large. We quote our market today as follows: Fancy comb and No. 1 comb, $2.25 per case; choice, $2.00. Extracted, white, 6 to 6 1-2 cents; amber, 5 1-2 to 6 cents. Beeswax, 30 cents. There is not much change in the honey market, but we believe the demand will pick up to a certain extent soon. Would not be surprised to see a good market next month. C. C. Clemons & Co.

Chicago, March 8.—It is difficult to get more than 12 cents per pound for any lot of white comb honey, with sales chiefly at 11 cents; even at this price it does not work off as fast as owners wish it would. Selections in the most desirable grades bring a little higher price in small quantities. Off grades sell at 1 to 2 cents per pound less. Extracted honey plentiful and slow of sale. White brings 6 to 7 cents; amber 5 to 6 cents according to quality and style of package. Beeswax active at 30 cents per pound.

R. A. Burnett & Co.

Toronto, Can., March 19.—The supply of honey is abundant. The demand is only fair. We quote our market today as follows: Comb, $1.50 per dozen on the average. Extracted, 6 to 8 cents according to quality. Beeswax 30 to 32 cents. We find the retail market very fair, but not much demand for large wholesale lots.

E. Granger & Co.

New York, March 10.—The supply of honey is very large for this time of year, while the demand is very quiet. We quote our market today: White comb, 12 to 14 cents; dark, 9 to 10 cents. Extracted, 5 to 6 1-2 cents. Beeswax, 29 to 30 cents.

Hildreth & Segelken.

Cent=a=Word Column.

The rate is uniformly one cent for each word each month; no advertisement, however small, will be accepted for less than twenty cents, and must be paid in advance. Count the words and remit with order accordingly.

WILL EXCHANGE Miller's Early Raspberry, $8 thousand, Rathbun Blackberry Tips, $25.00, Transplants, $37.50, Photographic Outfit, $42, for Gregg Raspberry Tips, $10,00, inspected. Sweet's Nursery, Swanton, Md.

FOR SALE—A Hawkeye, Jr., Camera complete. Uses both film and plates. Cost $3.00, will sell with leather case for $3.50 cash. Address Empire Washer Co., Falconer, N. Y.

A TANDEM BICYCLE (for man and lady) cost $150, in first-class condition, was built to order for the owner. Tires new. Will sell for $25 cash. Satisfaction guaranteed. Address J. Clayborne Merrill, 130 Lakeview, ave., Jamestown, N. Y.

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WANTED—To exchange six-month's trial subscription to The American Bee-Keeper for 20 cents in postage stamps. Address, Bee-Keeper, Falconer, N. Y.

LEOTA APIARY.—Pure honey for sale at all times. Thos. Worthington, Leota, Miss. 4t

"Today my inmost soul was stirred;
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Burst, like a little flame, and heard
The wandering bluebird's trumpet
sound.

"The heat of life is in the air,
And recreated summer swings
Her first faint odors here and there,
To lure the bee's adventurous wings."

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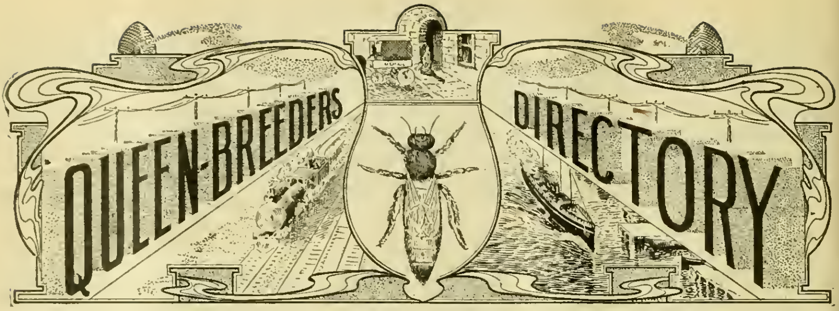

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MOORE'S LONG-TONGUED STRAIN of Italians become more and more popular each year. Those who have tested them know why. Descriptive circular free to all. Write J. P. Moore, L. Box 1, Morgan, Ky. 4

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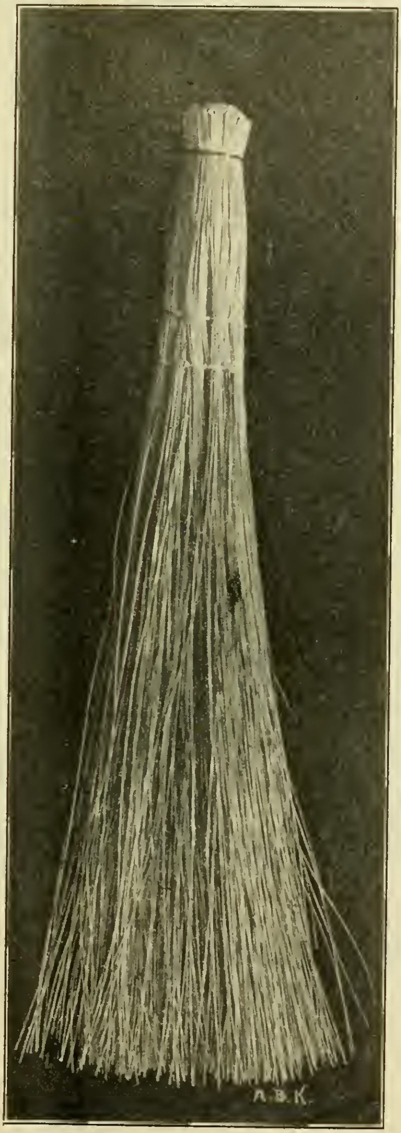
THE FLORIDA BEE BRUSH



An implement of unusual merit and the novelty of the season in apiarian supplies. The best brush for bees ever placed upon the market. For sale by supply dealers.

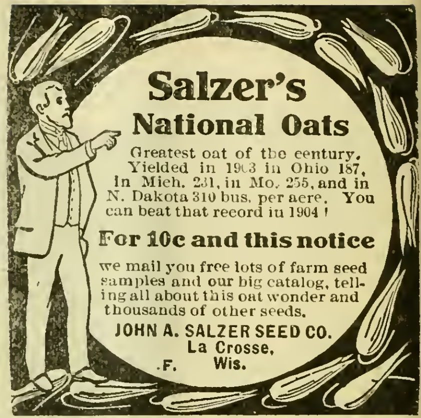
The Rural Bee-Keeper

is the name of a new monthly publication devoted to the interest of bee-keepers. A foreign travels department lends an added interest, and the women's department will interest ma as well as pa.

Sample copy free. tf

W. H. PUTNAM

River Falls, - Wisconsin



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we mail you free lots of farm seed samples and our big catalog, telling all about this oat wonder and thousands of other seeds.

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	Price	Both
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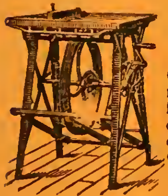

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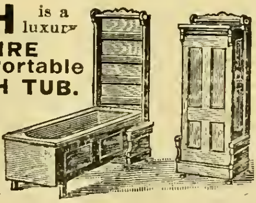

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THE AMERICAN BEE-KEEPER

Vol. XIV MAY, 1904. No. 5

PLACE FOR THE NEXT MEETING OF THE NATIONAL BEE-KEEPERS' ASSOCIATION.

By Frank Benton.

AS A MEMBER of this organization I am of the opinion that stronger reasons can be presented in favor of holding the next annual convention in St. Louis than in any other place.

1st. There will not be the least doubt as to railway rates, and they will be lower than can be secured by the Association itself, even if the required number to secure reductions on the certificate plan from the various sections of the country could be got together in any other city.

2nd. Everyone wants to go to the grand World's Fair which will be held in St. Louis in 1904.

3rd. Many good bee-keepers who are able to give more information to others than they are likely to get themselves at such a meeting, would hardly feel disposed to pay their fare to a distant point for the sake of presenting in person their views, which they could give to the public through the medium of printed journals, unless there should be at the terminus of their journey some other attraction in addition to the convention.

4th. St. Louis is central. It will appeal to bee-keepers from the East and the West, from the North and the South. It is not too far East for the Rocky Mountain and Pacific Coast bee-keepers, nor too far West for those from the middle and Eastern regions.

5th. It has never had a national bee-keepers' meeting, although nearly all of the important cities about it have been thus favored, some of them even having three or more conventions apiece, Chicago, Indianapolis, Cincinnati, Lexington, Lincoln, and even St. Joseph ("which is in the state of Mizzouray"). New Orleans and also Atlanta have each had a bee-keepers' convention, which was, in each case, intended to be national or international in scope, and besides numbers of bee-keepers from the adjacent region, they did attract some also from the North.

6th. Accommodations of the right sort for holding a convention in St. Louis can easily be secured through proper application in time and a definite fixing of the date of the meeting long enough beforehand.

7th. Dozens of suggestions present themselves to the mind of anyone at once as to the lines and opportunities which will be afforded to make a creditable showing for the industry, and of the scope of the work of the national society which represents it in this country. And these will be manifestly greater in connection with such an exhibition of apiarian products and implements as might be made at the St. Louis Exposition, than would be the case were Cincinnati, San Antonio or Salt Lake City selected.

When the great Louisiana purchase Exposition has passed, I shall be heartily in favor of holding a meeting in Texas, and one in Utah. In this connection it may be of interest to know where the thirty-four conventions have been held. Indianapolis has had 3; Cleveland, Louisville, Pittsburg and Toledo, 1 each; Philadelphia and New York, 2 each; Chicago, 4;

Cincinnati, 2; Lexington, 1; Toronto, 2; Rochester, Detroit, Columbus, Brantford, Keokuk, Albany, Washington, St. Joseph and Lincoln, 1 each; Buffalo, 2; Omaha, Denver and Los Angeles, 1 each.

U. S. Department of Agriculture,
Washington, D. C., January, 1904.

AN OBSERVATION HIVE.

By D. D. Alley.

I AM a beginner in bee-keeping. I have two eight-“L” frame hives in my back garden and an observation hive in my dining room window. I keep them more for the pleasure afforded in studying their habits than for the amount of honey produced.

Yonkers is a city of over 50,000 inhabitants and is practically an overflow from the great city of New York, south of it. The lawns are kept mowed as close as the beard on a monk's face. White clover blossoms are as scarce as snowflakes are in Florida. In spite of the lack of pasturage, my bees managed to fill the sections with some of the finest honey I have ever eaten.

My observation hive has been a source of great pleasure and profitable study to myself and friends, one of whom has facetiously referred to it as “Alley's Bug House!” It was constructed to hold two frames “L” size. On the 1st of July, I placed in it one frame of bees with a queen and one frame with a starter only. In a short time this frame was filled with comb and brood. In the meantime, brood from the old frame had hatched out and by the first of August the little hive was packed with bees. I wrote to the editor of a prominent bee journal, explaining the conditions and asking for advice to relieve the crowding, as I did not want to lose the bees. He suggested that I “remove a frame of brood and replace it with one empty comb,” adding, “We suppose, of course, that you are keeping this hive for pleasure and probably do not intend to winter them. “This advice would be all right if I had a large apiary; but, practically, it meant in my case to throw away the bees, and I did intend to try and winter them over.

I immediately set to work and constructed a new hive, the walls of which were in the for mof two L's, the front and right side being stationary. The left side with the back can be shoved in and out on the bottom board, and it is held in place by two iron ¼ inch rods passing through the upper edge of the sides. These rods also act as supports for the frames. This hive may be contracted to one frame or expanded to hold a dozen or more. I have successfully prevented the propolizing of the movable side, by rubbing over the edges with sculptor's “plasterine,” a substance used by sculptors for modeling, in place of clay. It never gets hard, it is waterproof and seems to be a combination of beeswax and powdered sulphur. Perhaps the bees do not like the sulphur and so leave it alone. I transferred the bees to this new hive, expanding it and adding a new frame with starter from time to time. It now contains six frames and the bees have every prospect of wintering successfully. I inclose a photograph showing the hive in position.

Yonkers, New York, Nov. 11, 1903.

OUR CALIFORNIA LETTER.

Things Apiarian on the Pacific Coast.

By Henry E. Horn.

AFTER basking and roasting in almost uninterrupted sunshine for over six months, Southern California has once more experienced the blessings of rain. True, we did not get much, yet we are thankful now for anything, and there is some prospect for more later on. The farmers say it is too late now to raise grain and they expect to cut the stuff for hay. Of course, bee-keeping is looking up some. It would not take much rain, now, to give us some kind of a crop. One good soaking of two or three inches would gladden the heart of many an apiculturist. Bee-keeping here has not been the unintermittent success people at distant places seem to think. Indeed, to be honest about it, it has rather been an intermittent failure for the last six years—intermittant to the extent of just one middling good success, and one lesser one. Last year was the most tantalizing season I have ever gone through. Not want of rain; dry winds and burning sun

"ALLEY'S BUG HOUSE."

spoiled our hopes that time. To that we are getting used; but misty nights, cold sea-fogs, and raw breezes, and all the time the hill slopes abloom with sages, the undulating background carpeted with yellow and blue and purple and white; every colony in prime shape and strength for harvest work, but unable to go out. When there is no bloom the weather is as fine as one could imagine, and when we have bloom in superabundance the weather is as bad as can be—wouldn't that jar you? Well, it did me.

The bees have come through our so-called winter all right, and are in good condition everywhere. There is considerable brood-rearing going on, but pollen is yet scarce, as is, also, new honey. The willows, eucalyptus, almonds and early peaches furnish about all there is. In many places a judicious feeding of rye-meal would probably assist towards more extensive brood production. In about three or four weeks more the orange bloom will set in and, as it lasts about four weeks in good weather, strong colonies, well managed, and almost, if not altogether, house an average honey crop. Of course, that is true only of those running for extract. The comb honey producers have too much swarming to contend with and consequent scattering of forces to get much orange honey. But if one has a super full of partly drawn comb from last year, all nicely cleaned, and the comb-faces pared off a quarter inch, one can do pretty well, too, with comb honey. But the faces must be pared or sliced off, else the cappings will show dark, no matter how clear the honey may be.

A Pasadena millionaire seems to think that there is lots of money to be made in apiculture yet, for he has lately bought up all available apiaries in this neighborhood—some thousand colonies. And the report is that he has bought up all he could get in other places in South California as well. The prices paid for average stock is said to have been about three dollars. Some bee men seem to think that honey production cannot be brought under the dominion of the modern spirit of capitalization, hence this millionaire's experiment will be watched with interest.

An aggravating case of foul brood infection happened in East Riverside. A well known apiarist sold his apiary, and then started afresh with a few colonies to raise up another—a model apiary. For that purpose he bought new dove-tailed hives, new frames, new fixtures generally; then he put bees into them, and then he imported directly from their home the best pure Italian queens. So far all went well. But one day, some time later, he noticed, in looking through a colony some cells showing up wrong. He went to the next hive, and to the next; and everywhere he found the same wrong-looking cells, the coffee-brown, sticky, ropey stuff where a young bee ought to be. Looking around among his neighbors for possible causes, he came upon one, also calling himself a bee-man, who had cut foul-brooded combs out of their frames and dumped the corrupted mass behind a bush in the open, where thousands of bees fed on it. That also-beeman has no use for bee papers, but he was persuaded in short order to subscribe to constable papers.

Riverside, Cal., March 9, 1904.

LATER.

THE weather has been rather favorable with us this past month. We have had considerable rain, warm days between, and no cold nights or frosty mornings. The orange bloom is setting in well, the sage is growing fast, the hill slopes are becoming fresh green, balmy air is all around, a mild sun overhead. A little longer and ours will again be a land of rare beauty and of pure delight. Farther up the coast, especially in Ventura County, where live and operate our apiarian captains, Mendelson, McIntire, et al, the precipitation to date has been sufficient to produce at least an average crop of this world's best sweets, provided, of course, that the weather clerk sends along, some time later, a spring shower or two. Farther up still, in the central and northern counties, people were praying for sunshine about the same time that Los Angeles preachers petitioned heaven for rain—and with about as much success. They have been having old times again up there; torrents of rain, rushing rivers, flooded lawlands, and no end in sight, But the climax has been reached in the high Sierras, snow-clad summer and winter, the battle ground of the primeval elements ever since the ice age retreated poleward. Snow twenty to eighty feet deep. Canons leveled brimful overnight, whole towns laid away in nature's own funeral shroud till spring and resurrection. They say that apiculture up there, or along the higher slopes, is wonderfully productive, that the honey flow lasts all summer through, and is as certain as natural law. But bees cannot live there in winter, with forty feet of snow piled on top of them, or exposed to the terrific blasts of the winter storms. A few venturesome men move apiaries up from the foothills most every spring or early summer, and return in the fall loaded to the guards with honey, wax and increase. But moving apiaries hundreds of miles every year is not everybody's business, and they say that there is yet considerable room up in the California Alps for apiarists of the strenuous type.

On the whole then, the prospects for a crop of honey are rather good at present in this State.

ONE FOR DICKEL.

At the first spring overhauling of my apiary, about six weeks ago, I came to a colony that had become queenless for some reason or other. Ordinarily it is best to unite such a one with another queenright colony. But this was pretty strong, able to raise a queen and make honey besides, when the time would come. So they were given a frame of brood and shut up—and forgotten. On examination a little less than three weeks later a young virgin was found, a lot of destroyed queen cells, all the rest of the brood either hatched or capped over, but near the center o fthe comb a worker cell—just one—was sealed over round, raised up. There was a drone in that cell without the least doubt. There was no intention at that time of testing the Dickel theory; it flashed into my mind only when I looked at that raised cell. They say that miracles do not happen any more; that is because the beholder's eyes are veiled. That incomprehensible, eccentric, utmost methodical busybody, the worker bee, able to convert an ordinary bee egg into either a perfect male, a perfect female, or a sexless worker, as it sees fit,—isn't that a miracle of the very first order? Does that happen again in the whole wide domain of nature?

Weissman has been reported as denying the correctness of the Dickel theory. Weissman is an authority on biology, ranking very high. I wonder what he would make of that little round-capped cell of mine out in Pigeon Pass Canon. As I now remember, this same thing has happened to me before, but I never knew its meaning or importance.

REFUSE BEET SUGAR FOR BEES.

There was mailed to me by a nearby sugar mill a circular advising me to buy some of their lumpy leftover beet sugar for bee feed. There is, of course, nothing unusual in that. But at the bottom of the leaflet there appears an indorsement, signed by H. J. Mercer, secretary California N. H. P. A., recommending said lumpy beet sugar as being healthier as well as cheaper to feed than honey, with no danger of foul brood from its use, at which this humble scribe has wondered a great deal. "Healthier" than honey, the bees' very own special food, lumpy beet sugar? If sugar is healthier than honey, honey must be less healthy than sugar. The only thing that would or could make honey less healthy than sugar is the possibility of its carrying the spores of the foul brood disease. Mr. Mercer does not say why. But he later on expressly mentions sugar as dangerless with regard to foul brood, thus leaving the impression behind that the honey in the market is very likely largely foul-brood-spore infected goods, and hence not good for bee feed, nor, by implication, for man food, either. But foulbroody colonies are not productive, and therefore furnish no honey for the market, and this Mr. Mercer must know. "No danger of foul brood from its use"—directly, no, but indirectly, sugar may become a very strong factor in the taking of the disease. In years gone by Europeans practiced extracting honey to the last drop, and feeding up with sugar instead. Honey sold for twice the price of sugar, thus making that system of robbery seem a profitable one. But close observers found that sugar-fed colonies soon lacked the vim and vigor of those fed on honey, and that they, moreover, and for that reason, were much more liable to foul brood infection. The albumenoids of the honey, vitally necessary to bee life, are not found in sugar. Besides sugar is not directly food for bees anyway. Only after its chemical inversion does it become so, but that act requires the expenditure of vital energy on the part of the workers, and hence reduces rather than adds to their store of it. Nor is sugar cheaper. At five cents a pound its price, less freight, is just level with that of honey, the only true bee feed in existence.

It may be stated without the addition of any extra sarcasm that Mr. Mercer is a bee man and an officer of an organization working for the sole purpose of extending the honey market and of maintaining a good price for it!

* * * *

Mr. Fletcher, of Pasadena, the man who has been buying up apiaries wholesale in Southern California for the last six months, now owns twelve thousand colonies, scattered over six counties. He will probably not borrow any trouble from anybody for some time to come.

Riverside, Cal., April 8, 1904.

HIVE CONSTRUCTION, ETC.

A Very Interesting Letter Addressed to the "Irish Bee Journal," by a Venerable Expert, Thoroughly Familiar with Apiculture on Both Sides of the Sea.

By Dr. W. A. Smyth.

THE large number of bee-keepers at home and abroad, who have been interested in Dr. Smyth's scientific articles will be pleased to have a picture of the doctor in his apiary. Our desire was to publish an "interview" but circumstances having rendered it impossible at present to accept a very cordial invitation to Donemana, Dr. Smyth has been good enough to supply the following letter to accompany the illustration. We hope on a future occasion to supply our readers with notes of a visit to Donemana, and of an inspection of the wonderful microscope and scientific curiosities there. Dr. Smyth has been a fast friend of the Irish Bee Journal, and a most valued contributor to our columns. His articles have been re-published in the foreign bee papers, and have attracted the attention of some of the foremost bee-keepers of the day. We are deeply indebted to him for much of the remarkable success which has attended the effort to produce here a bee journal worthy of the subject to which it is devoted, and of the country of its birth. Dr. Smyth writes:

"A photographer from Derry, nine miles distant by cycling road, and five in a bee-line, happened to call one evening seeking a chance to practice his art, and hence this picture.

"From boyhood I have been interested in bees, but I never kept any until after reading Langstroth's work—it might be called a poem—on the honey bee. I spent a day with Langstroth at Oxford, Ohio, in 1867, and the same year he sent me to New Orleans, a dozen of his hives, and half a dozen Italian queens. The Italian bees, as a rule, were very gentle, but all colonies were not alike in disposition or color. Lanstroth told me that he thought the Italian bees were a hybrid race, as their shape, markings, and disposition were not at all fixed or uniform.

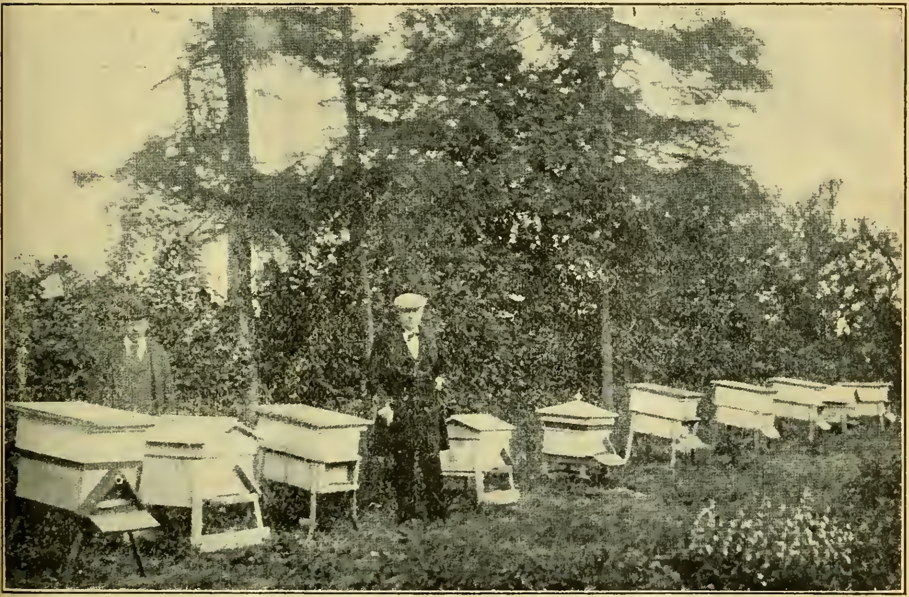
"I lost most of the queens from disease which I attributed at the time to excessive manipulation. I frequently took out the comb with the queen on it, without using any smoke, and the queen would continue laying eggs in the cells without being in the least disconcerted by exposure to the light or by numbers of persons around her. Foulbrood is common in Louisiana, probably owing to the dampness of the climate, but for some reasons it is not so infectious or disposed to spread as it is in Ireland.

"I never attended closely to supering hives so as to get much honey. My friends could always make use of all the honey I could get from the bees. I have not kept bees for profit, but from an interest in their marvellous work and ceaseless toil, and to study their wonderful instincts of labor and organization, and their surprising intelligence, which Maeterlinck has so dwelt upon without in the least exaggerating it. The briefness of their life, as contrasted with the object and results of their labor, led Maeterlinck, however, to ask the question: 'Why do bees want to live?'

"May it not be that all living cells struggle and fight for life, the hope of higher things and better days as a property of living cells, and inseparable from them, animates all life from the lowest to the highest, and is really what Maeterlinck calls the 'spirit of the hive'?

"The first hive in the picture (five Langstroth hives on the left not shown) is the hive exhibited at Cork, and the village carpenter, Taylor, who made it, is nearly in the rear of it. He has distinguished himself as the first to attempt making a hygienic hive; but whether he thought of the sweet smiling goddess of health or her illustrious father Esculapius, while making it, is problematical.

"The second hive in the picture is a 'combination hive' made fiteen years ago by Fulton, a very expert carpenter and bee manipulator, living near Claudy, Ala. The hive takes fourteen frames and a divison board. It is a well-made hive that has many advantages, and only one fault. It is not hygienic, and is not now stocked with bees. The next is the Langstroth hive, one of a dozen from the late T. G. Newman, of Chicago, in 1895; not an improvement, however, on the hives of 1867. The floor-board is fixed to the hive, which is objectionable. The iron legs were made so that weights could be placed on them for security against storms. The legs are half an inch from the sides of the hive, The inside breadth is fourteen inches, and takes nine frames at one and a half inch spacing or ten frames at one and three-eighths inch spacing. The bees certainly do better on the ten frames, and I think Langstroth was right when he concluded that one and three-eigths inches is the best allowance for combs in the brood chamber. The two standing hives are of simple construction. One of them, with frames across the entrance, has double walls at the sides; the other, with frame ends to entrance, has double walls front and back.



DR. SMITH'S APIARY, DONEMANA, IRELAND.

"In hives with double walls, if the inner walls should happen to be tight—and the bees will endeavor to make them so—and the outer walls open to some extent, allowing circulation of air, the double walls do not seem to do any harm. Some bee-keepers say that their bees do best in hives with cracks and openings in the walls. The badly-built, chinky homes of the poor are often more hygienic than the carefully built palaces of the rich. The open air treatment of disease consists, simply, in getting the patient away from the microbes growing in dead air spaces. There are ten microbes growing in the mouth for one growing in the nose; the nose is better ventilated.

"The disease, appendicitis, arises from a dead air space in the intestines, for which we can find no use, and which evolutionists say that nature in time will eradicate. Is it not now time for bee-keepers to eradicate dead air spaces in their bee hives, as a hygienic measure? Measures belong to man, but principles and time belong to God."

Donemana, Co. Tyrone, Ireland.

FERMENTING HONEY.

Something of Its Treatment and Culinary Uses.

By Mrs. S. A. Smith.

IN the December issue of the American Bee-Keeper I see that Mr. G. A. Nunez, of Honduras, asks about fermenting honey.

From what he writes, I think as you do, that the trouble is caused by some member of the palm family. Perhaps just enough honey is gathered from it to cause fermentation when mixed with honey from another source.

We have always had just the same trouble with honey from the cabbage palmetto tree. While saw palmetto honey is cured and ready to extract almost as soon as stored, the honey from cabbage palmetto is never cured in the hive. I have left it in the hive a year, and at the end it was no better than in the beginning. You can see the honey in the cells work just like yeast.

The way we treat such honey is to place it on the fire and slowly heat, and keep it hot at least six hours. We never got it so hot that it would boil, and I think you could place your hand in it without burning. A scum will rise, which we remove. After this treatment we have no more trouble. The flavor of the honey is very much improved. Before heating it has an acid taste; after heating it has a caramel flavor.

One customer, who used five gallons of honey a year, would take that kind every time he could get it. But for baking I always keep a supply uncooked, for the acid is just what is needed.

I make all fruit cakes and plum puddings from it, and everyone who eats them is sure to ask how they are made, and of what. I always use soda instead of baking powder, and as honey cake must be baked slow, that is much better, becuse it is slower to fall than the baking powder.

The acid and soda make a complete raising combination and is very much ahead of baking powder, and is very cheap, too.

The cakes and puddings made from this honey would keep for months, and improve every day. The only trouble I ever had was that the rest of the family would not agree with me about keeping them, and for once their motto was, "Never put off until tomorrow what you can do today." Their idea is to consume that which is good and keep that which is not.

At our neighborhood parties and picnics where cake is needed, I am always asked, "Will you please bring a honey cake?" I wish the whole public was educated to its use. If they were, there would be a good market for all we could produce. For bakers' use, it would be the cheapest and best of any honey, for no cream of tartar would be needed in using it, and that is the most costly part of baking powder.

Mr. H. C. Gifford, of Vero, Fla., told me that his plan of disposing of such honey was to keep it until cold weather, when it would candy and would sell for as much in the open market in the north as our best saw palmetto honey.

Another Florida bee-keeper told me he had an awful time with it, on account of its bursting the barrels.

I wish everyone knew the worth of honey for cooking. The cost per pound may be more than sugar, but it is nevertheless cheaper to use in making cake, because cheaper fats and less eggs may be used than when sugar is, and what is more, the cake or pudding may be eaten without harm by those with the weakest stomachs, and they seem to be complete food.

Where there are children, nothing could be better. They like and need sweets, and if you add good milk to the bill of fare, you will have one no child will ever find fault with.

If less sawdust and straw, under the name of "breakfast foods," were used, and more honey cakes made and consumed in their place, there would be less sickness and weak stomachs than at present.

Grant, Fla., Jan. 10, 1904.

CYPRIANS ARE VICIOUS.

By Dr. O. M. Blanton.

IN THE MARCH number of the American Bee-Keeper I find an article by Mr. Arthur C. Miller in regard to the nature of the Cyprian bee, in which he seems to infer that it is my bad management of the smoker instead of the ill-temper of the bees that causes the trouble.

With thirty years' experience as an apiculturist I have learned the abuse of the smoker and avoid using it as much as possible.

How is it, that after going through fifteen black and one Carnio-Cyprian colony without a sting, I should be attacked by almost the entire Cyprian colony and repeated day by day three consecutive times? Not only that, but a week after, when passing the hive, they would rush out at me.

Knowing the trouble I would probably have I reloaded my smoker and pushed a few rags over the wood and gave them the gentle puff of smoke, but as soon as I attempted to remove a comb they rushed by thousands at me.

I next day tried tobacco wrapped in rags, with the same result, proceeding with the greatest care.

As a dernier resort I used sulphur, which subdued them until I could remove the surplus honey. This all occurred when there was a large flow of honey on. There never was a time I used more caution.

Mr. Miller's strain of bees must be quite different from mine. I have the experience of Mr. A. I. Root to tally with mine and it is useless to claim for the Cyprians gentleness, because he has a comparatively gentle colony.

Greenville, Miss., March 12, 1904.

GENERAL NOTES.

By C. S. Harris.

BEES MOVING EGGS.

I think that W. W. McNeal is right in supposing that the eggs were carried by the bees from the brood nest to the super, through queen-excluding metal. I had an experience some years ago which convinced me that bees do move eggs. See A. B.-K. for October.

"IMPROVED QUEEN REARING"

Mr. Geo. W. Phillips' review of Mr. Alley's book, in Gleanings for November 15th, and his criticisms of the methods of Queen-rearing there given appears to me both very good and very fair. While, undoubtedly good queens can be reared by Mr. Alley's methods, they are too "puttering" and "fussy" for the average man, particularly when at least just as good queens can be reared by much more simple methods.

BALL OF BEES WITH QUEEN.

Again I find myself with Dr. Miller, and arrayed against Editor E. R. Root, in the matter of a ball of bees being found about a clipped queen on the ground at swarming time. It is seldom, in my experience, that a clipped queen ma[illegible] return to the hive and unless I am present at the time of swarming, I generally lose the queen, sometimes finding her dead near the hive. Occasionally I have found a small cluster of bees with the queen, but usually she is entirely unaccompanied. Certainly not once in a dozen times do I find a bee with her.

FRAME SPACING.

The discussion upon this subject has always been a puzzle to me. I use a loose hanging frame and it seems second nature to space it properly. I have no trouble with bulged or badly built combs. I suppose if one had to have incompetent or careless help there might be trouble in this respect. Propolis is very bad with me and I simply could not use the seemingly popular self-spacing frames with any comfort, and I have yet to see any self-spacing frame which equals the lose hanging frame for general use.

MOSQUITO HAWKS.

In the October issue of Gleanings Mr. H. F. Stafford asks a question in regard to mosquito hawks, and the editor calls on his Southern subscribers for help in the matter. I have been watching for something on the subject, but so far have not seen anything. I am satisfied that at times I lose queens at the mating period, in considerable numbers, by the attacks of these insects. Fortunately it is the general habit of the mosquito hawks in this locality to fly only in the early morning and evening and on dull or cloudy days, and this is a partial safe-guard, but occasionally they will be about in hundreds, I might almost say thousands, upon days which the queens find good enough for flight, and at such times my percentage of loss is always heavy. It is true I have never seen a queen taken by one of these hawks, but I have had workers snapped from my hands and have caught the robber with the bee fast in its jaws.

These mosquito hawks are always numerous during the season of bay bloom and I have sometimes doubted if the nectar secured from it compensated for the accompanying loss of bees. Bay bloom does not open until late in the afternoon, unless the day be cloudy, and then the whirring of wings and snapping of the powerful jaws of these air pirates in the apiary is to me a very distressing sound. I have never found any way of combatting them.

Holly Hill, Fla., Nov. 26, 1903.

Our staff contributor, Mr. Adrian Getaz, writing April 22d, tells of a disastrous freeze which visited this State on the 20th, ultimo., utterly freezing young peaches and pears already formed, and also the apple bloom. He says the honey crop will be almost a failure there.

Writing under date of April 21st Mr. D. H. Coggshall, of Groton, N. Y., says: "I think we shall lose fully one-half of our bees. In fact, I think one-half are dead at this writing, and I believe it will be so all over the state."

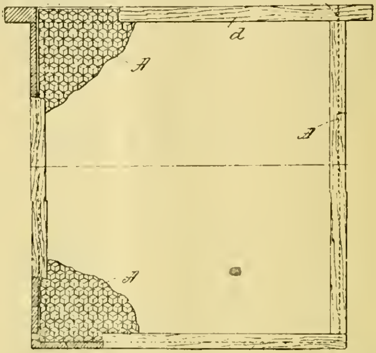
Whatever may be the extent of the honey crop, present indications are that an excellent market awaits it.

Can you use a few sample copies? We'll be pleased to send them.

NEW INVENTIONS.

747,055. Comb Foundation for Beehives. Hugo A. Feldmann, Holyoke, Mass. Filed April 27, 1903. Serial No. 154,472.

Claim. A comb foundation for beehives consisting of a wax cellular comb-sheet of rectangular form and a frame having within one end member a groove, the frame having grooves within the inner faces of its opposite side members, and having a slot through its other end member extending from near one end to the other of such member, the end portions of which slot match with the grooves in the adjoining side members, said comb-sheet having marginal supporting engagements in said grooves and slot.



ONE "BOY ON THE FARM."

A Youthful Bee-keeper of the Pine-Tree State Who is an Interested Subscriber to The Bee-Keeper.

By Rev. C. M. Herring.

THE mother here introduced—Mrs. A. F. Cromwell—is a widow, of character and influence, whose home is on a farm in a rural district in the town of Topsham, Me.

The farm is quite remote from neighbors, partly surrounded by forests, having a rich and productive soil. It is a home of beauty, having a large supply of fruit trees, vines, white clover, and other sources in which is stored the precious nectar so invinting to the labors of the bee, while the surrounding forests are interspersed with wild berries, mountain ash, and basswood, all of which make the farm a rich one for the production of honey. Besides, there is one other source of supply which is not common.

There is a lily pond near at hand, which is white with its sweet blossoms, nearly all summer, on which the bees were found to cluster in large numbers, and it is presumed they gathered honey from this source.

Such is the home of the widow, who has a little son—Bernard A. Cromwell—13 years old, who has an inquiring mind, of quick perception, and is a child of promise. Over this boy the mother watches with parental care, and seeks to guide his opening powers to noble ends. Almost any sacrifice would not be too great for her to make, in order to save her child from the influence of bad boys, and the corrupting vices of the city. She would like it, when he is grown up, if he would be inclined to cultivate the soil for a living and become an intelligent, honest and aggressive farmer. To promote such a result she would preoccupy his mind with a love for rural life in his early days. She would encourage in him the possesion of a little patch of ground to cultivate, as his own, to have his chickens, his pet lamb, his "bossy," and his bees.

With such wishes and ideas, this mother purchased from me a colony of bees, and began the work of running an apiary. Her mind, and that of her boy, was full of investigation, and both were greatly delighted as the work went on. At this writing, the result of the summer's work is fully known.

The one colony purchased last spring has increased to four, and the three swarms are now heavy with their stores for winter. The first swarm has given five pounds of surplus honey; and the old mother colony has given forty-five pounds, worth twenty-five cents per pound. The three swarms are worth $12, and the fifty pounds of honey are worth $12.50, making the whole gain $24.50. The outlays amount to about $9.

MASTER CROMWELL AND HIS GOOD MOTHER.

The lesson here found is worthy the notice of every farmer or mother who has a family of children. For all, the honey is a wholesome luxury, and for the children it is vastly better than candy. And then, the intellectual and moral lessons involved are most stimulating and elevating, as well as remunerative in dollars and cents.

If I were a farmer I would look after my harvest of honey as I would my havest of hay.

Brunswick, Me., Nov. 30, 1903.

THE

Bee-Keeping World

Staff Contributors: F. GREINER and ADRIAN GETAZ.

Contributions to this Department are solicited from all quarters of the earth.

ARGENTINA.

The Agricultar Moderno reports a bee-keeper in the Province Ardoba, of averaging from 300 to 400 pounds of honey per hive each year. From other parts of Argentina it has been reported to the gleaner of this that the yields were very meagre and that bee-keepers were considering the advisability of importing the Italian bee, hoping by this measure to increase the yields per colony.

HOLLAND.

Rev. Richard, in Amsterdam, advocates to locate hive entrances in the tops of hives, instead of at the bottom. He observed a great difference in the yields of his two colonies which were of uniform strength, one, however, had the entrance at the top and giving large returns, the other with the entrance low giving small returns. When a change was made and the entrances were given at the top in both hives, the yield after that remained practically uniform.

GERMANY.

The manufacture of honey is described in Praxis der Bzcht, as follows: A quantity of flour is browned in a kettle. According to the kind of honey wanted, the flour is browned more or less. Water is added little by little and the mess is constantly kept stirred. When of the right consistency saccharine and honey are added and also some essence. The mixture is then ready to be put up in tins. (Sounds like a hoax.) It is said that the makers of this fine honey have now established a plant in Chicago, Ill.

The winter has been mild in Germany and favorable for the bees.

H. Brodtman, in Billerbeck, had had a hive patented which is made of brick. It is a tenement hive. The partition walls are of unburned brick and wood, and the cost per colony is from two to three marks. In 1881 at an exhibition a hive was exhibited made of ground cork and plaster paris. This hive received the first premium at the time, but has not come into general use.—Central Blatt.

IRELAND.

An Irish writer laments that more bees are not kept in Ireland. The land produces now but 700,000 pounds of honey and could be made to produce as much as 40,000,000 pounds. He advises his Irish brothers not to emigrate to America, but to stay at home and go into bee-keeping.—Leipz Bztg.

TUNIS.

The material for bee hives used by the Tunisians is very inexpensive and is nothing more or less than Mother Earth. However, the soil must be of a certain nature, a soft porous stone. Square holes are cut into the ground, 80 cm. long, 40 cm. wide and 30 cm. deep. These holes are cut very smooth. Bars are used for the bees to fasten their combs to. Each cavity is covered with sticks, and a covering of earth. An entrance is left in the center of each hole. About 50 such hives are located together under one roof. The Tunisians use smoke to handle their bees and do not protect themselves against stings in any way.—Revue Internationale L'Apiculture.

SWITZERLAND.

The bee-keepers in Switzerland are making the effort to preserve the purity of the brown bee. A station has been established for the rearing of native bees. American bee-keepers, friends of the brown bee here may soon find an opportunity to procure the black or German bee in its purity.

DENMARK.

Judging from the Danske Biauls-Titende, a Danish agricultural bee journal, bee-keeping in Denmark is carried on according to American principles. Doolittle's conversation translated from Gleanings, are often reproduced in this paper. The Danish bee-keepers' society receives a yearly appropriation from the State.

BRAZIL.

Editor Schenk of the Braz. Bienenphledge, reports of never before having harvested such beautiful orange honey, and in such quantities, as the past honey season. The trees blossomed unusually early and very profusely, thus affording the bees a grand opportunity for seven weeks to gather orange blossom honey.—From Bienen Vater.

SPAIN.

The heirs of Mr. Enrique de Mercader-Belloch have decided to continue the publication of El Colmenero Espanol and have secured for editor Mr. Pedro Villuendas Herrero.

FRANCE.

Mr. Baichere says that the honeysuckle (that is the European kind) produces a considerable quantity of nectar but that the flowers are so deep that the bees cannot reach it. However, some kind of bumble bees are in the habit of cutting holes near the bottom of the flowers to reach the nectar. The holes once made are used by the bees and other insects. The honey from the honeysuckle is white and of an excellent taste.—L'Apiculteur.

A correspondent of the Apiculteur says that somebody had sown a piece of buckwheat. Half of the field had been manured, and the other had received a good dose of lime. Hardly a bee was seen on the blossoms of the manured part, while they were very numerous on the other. This seems to sustain an opinion often expressed in Europe: that the limestone lands produce more nectar than the others.—L'Apiculteur.

The same paper quotes from an English journal the assertion that to cure rheumatism it is necessary to get 12 stings per square inch. The question is asked, which is the worse—the cure or the disease.—L'Apiculteur.

Dr. Clement, at Lyons, France, has made some experiments on the effect of formic acid on the human system. He took, four times a day, eight to ten drops of formic acid in water. After the first day the effects became apparent, and increased during the following three or four days. There is a certain excitation of the muscular system shown by a need of active movement. Also a considerable resistence against fatigue and tired feeling. With the use of formic acid, hard work or exercise can be much more easily performed. And the tired feeling often experienced the next morning after a day of hard work disappears completely. As the honey contains some formic acid, the suggestion comes of itself.—La Revue Eclectique.

Mr. Alphandery gives a description of the cheapest bee hive stand I have yet heard of. Only two pieces, perhaps 1x6 inches, or about, placed one across the other so the ends come under the four corners of the hive. To bring them to the same level, each piece is notched half way at the middle. The lower one is placed the notch upward. The upper one on it with the notch downward slipping in it. This description is not very clear, but with a little reflection the reader will understand what is meant.—Gazette Apicole.

BELGIUM.

Some time ago, I spoke of a discussion concerning the existence of laying workers, which had taken place in some of the European bee journals. More recently Mr. Mercier, of Thirimont, Belgium, experimented on the subject. He says that when the queen and all the unsealed brood are removed, no laying worker appears; at least it has been so in his experiments. He thinks that when all the larvae are too old to produce queens the excess of jelly or royal jelly, is distributed among the larvae and these or some of these become the laying workers. It might be well to state that other experiments made before did not turn out that way. In several cases, queen and unsealed brood were removed in order to make sure that no imperfect queen could be raised; but nevertheless laying workers appeared and in large numbers at that. Mr. Mercier also recalls the fact that in queenless colonies wintered over never develop laying workers.—Le Progres Apicole.

Mr. Simonart of Quievrain, Belgium, relates an experience with laying workers. After the fact was ascertained, he united that colony with one having a queen. As usual in such cases the drones were destroyed at once; but what caught Mr. Simonart's attention is the fact that during the next six days a portion (about half in all) of the workers of the laying worker colony was destroyed, more or less every day.

When two colonies refuse to unite, the bees of one are usually entirely destroyed or nearly so, and that is done within two days at most. But in this case, half the population is accepted, while the other half, or about, is gradually destroyed. Mr. Simonart thinks that such being the case, the destroyed bees were those engaged in laying or the actual laying workers. He thought that these killed bees had somewhat larger abdomens than the others. There could be no mistake as to which population the killed bees belonged to, as one colony was pure blacks, and the other pure Italians.—Le Progres Apicole.

Mr. Philippe says that cotton waste, such as is used by the railroad engineers, is one of the best fuels for the smoker.—Le Proges Apricole.

ITALY.

In a previous contribution I stated that the leaves of the lime tree bruised in the hand, attract the bees, and are used in Southern Italy to induce a swarm to settle where it is wanted. The same item has reappeared again, but this time it is the lemon tree that is named. The two kinds are so near alike that there could not be any difference. (Our Florida friends are invited to try. Perhaps the orange tree leaves might do.) A German paper suggests that where the lemon tree does not grow, the bark or peelings of a lemon might be a good substitute.—L'Apiculteur.

ALGERIA.

Mr. Bourgeois says that while the Punic bees are usually very cross, yet at times they can be handled as easily as any others. He adds that as honey gatherers they are somewhat superior to the Italians and Carniolians, at least so far as such as he had are concerned.—L'Apicultuer.

RUSSIA.

It is stated in "Ung. Biene" that bees were kept more extensively in Russia a thousand years ago than now. At Emperor Ivan's time the exports of honey were 810,000 kg. At the present time the number of colonies kept are 5,106,722, the amount of honey they produce 65,418,880 pounds, the wax represents 10,797,760 pounds. Russia consumes more honey and wax than she produces A great deal of these products are imported from Hungaria.

It is known that the honey fully ripened contained in the hives during the winter, is too thick for immediate use. It was formerly admitted that the water evaporated from the bees and condensed against walls of the hives furnished the water necessary to dilute the honey. Berlepsch was the first to discover that such water contains noxious matters evaporated with it and is not used by the bees. Lately a Russian apiarist, Mr. Tseselsky, discovered that the bees are in the habit of uncapping the honey in advance. This when uncapped, absorbs the moisture of the air, and is thus diluted. Comparing the freshly uncapped honey with that uncapped several days before, he found that the last had absorbed one-half to two-thirds of its weight of water. The lower the temperature, the more water had been absorbed. He also insists on a sufficient ventilation to carry away the noxious gases, and other products of the bodies of the bees, and bring in the necessary moisutre to dilute the honey.—L'Apiculteur.

ALGERIA.

The most extensive bee-keeper in Algeria is Mr. Bourgeois. He now owns several thousand colonies bought from the Arabs and French colonists and transferred in modern hives. The European process of transferring consists in drumming the bees and queen from the old hive in the new, putting a queen excluder on the new hive, and finally the old hive on top of the new, stopping all openings except the entrance to the new hive. The object of the drumming is to make sure of having the queen in the new hive. Twenty-one days later the old hive can be removed and demolished.

Mr. Bourgeois found the drumming part almost impossible, partly on account of the awkward shape of the hives in common use and partly on account of the viciousness of the Algerian (or Punic) bees. He then followed successfully the following process: Put a virgin queen in a cage and the cage in the hive from which you want to drive the bees. The old queen will try to destroy the virgin and finally finding herself not able to do it, will lead out a swarm. All that is to be done is to put the swarm in the new hive. Mr. Bourgeois does not say whether he used a queen trap or not. Anyway, this is certainly a good way of securing a queen which cannot be found by the usual processes.

I am not sure that the process would be as successful with other races of bees as Mr. Bourgeois found it.

The Punic bees are not only very vicious, but also inveterate swarmers. They are first-class honey gatherers, but cap their honey quite greasy. They are the blackest race of bees known.—Adrian Getaz.

OUR CORRESPONDENTS

Black River N. Y., March 21, 1904.
Mr. Editor:

In the American Bee-Keeper for January, 1904, Brother A. C. Miller says that bees pack pollen with their mandibles. I dont' think so. I think and am almost sure that they use their front feet.

If you will take a new drawn comb and pull a bee out of a cell when they are at work packing pollen, you will find the impression of her feet all over the top of the cell of pollen. If you cannot, use a magnifying glass. I hope we shall know who is right some time. There has been too much theory and not facts published in our bee books.

Some hives are better for comb honey than others, but one would think to hear some of these patent hive men talk, or read their articles, all you need is their hive. I wish to tell the beginner as W. L. Coggshall did years ago: First, the location; 2d, the bee-keeper; last, the hive. I often hear a novice say if I had a hive so and so, I could get a lot of honey. I never could find any kind of business that would run itself without hard work and brains. As this has been a hard winter for bees up here in New York state, especially for those out of doors, there will be more or less weak colonies this spring, and as I have found in years of experience it don't pay to double them up early in the spring, unless they are queenless. Tuck them up nice and warm until the honey flow opens. Then, and not until then. That is the time we have got to have strong colonies for comb honey; for you cannot produce fancy comb honey unless your colonies are strong. I found out years ago by two colonies uniting when they swarmed, that not only stored more than double the honey but nicer in every way. I use the L. dovetailed hive, eight frames. I use two stories if the queen is a good one. Don't use a queen more than two years. I find this plan the safest. When I get the first brood nest well filled with eggs, and brood I put the other under, not on top. If you put it on top the bees will fill it with honey before the queen can fill the combs with eggs, but by putting it under, the bees will not crowd the queen. This has been my experience. A young, vigorous queen will not hesitate to go down to the empty combs. How I do pity poor old Dame Nature. Undeveloped worker bee, she not only mothers the young but gathers the food and builds the combs. And yet man says she is undeveloped. Geo. B. Howe.

Brunswick, Me., April 9, 1904.
Dear Brother Hill:

I wish to express my thanks to our friend A. C. Miller, for his instructive article in the April number of the Bee-Keeper, in which he gives us the results of his experiments on wintering bees.

I believe his conclusions are sound, and important to all bee-keepers. It is the strong colony that will stand the frosts of winter.

But there is one other conclusion, drawn from his experiments, which he does not mention, and which, to me, is very convincing.

It seems it was the Bingham hive, not so very strong of itself, which excited his admiration, and to which he calls special attention.

This hive had four sections in its divisable brood chamber, each one of which, rising one above the other, had frames 5½ inches deep which is equivalent to one set of frames 22 inches deep. The fact that it had four parts does not change the condition.

This hive then, which beat all the rest, had frames 22 inches deep, which proves my notion that the deep frame is better for wintering bees than the shallow. Yours truly,

C. M. Herring.

Haverhill, N. H., April 11, 1904.

Editor American Bee-Keeper:

My brother and I have been together, subscribers of the Bee-Keeper for the last year and have read it with great interest. This spring I find that I have lost thirty per cent of my bees. In the colonies that were dead, wherever the bees were on the comb it molded it quite badly. Now if the ends of the cells where the mold is, is cut off, will it be all right to use again? I do not want to do anything that will bring disease among my bees. Please let me know anything that will help to keep bees in a healthy condition. I want to use what old comb I can, but not to the detriment of my bees.

Thanking you in advance for any favor, I remain, your truly,

P. J. Burbeck.

It will be all right to use the moldy combs as indicated, or a hive-body full of them might be set over a good strong colony to clean up and care for until needed. The greater danger, in handling such stuff, arises from the probability of inducing robbing in the apiary, by unduly exposing the honey. If due precaution is taken against this menacing evil, no other bad results are liable to follow.—Editor.

Hegg, Wis., March 23, 1904.

Editor Bee-Keeper:

I wish to ask a favor in regard to honey: First, do you think it best to extract or to sell the honey in the comb, when the market is poor for comb honey? Second, is it necessary to have loose bottoms in the hives, for destroying queen cells? If you can give me a little advice upon these questions in the Bee-Keeper, I will be very thankful. Sincerely yours,

Theodore Qualley.

If the object of the producer is cash, it is, obviously, the part of wisdom to produce the kind of honey most readily converted into cash. The production of merchantable extracted honey does not require so much skill as does the production of comb honey of a high grade; and it is less expensive perhaps, as well. We should say, "go in" for that which sells most readily at a profitable figure.

As the writer is accustomed to handle bees, it is very rare that we have to manipulate a colony expressly for the purpose of destroying queen cells; and we fail to see that a loose bottom-board would in anywise facilitate the work when it is necessary. We prefer a loose bottom, however, and to have upper and lower stories alike, and interchangeable. As a means of preventing swarming, it is not safe to depend upon the efficiency of removing the queen cells that may be along the bottom bar of the brood chamber. Others may be located higher up, and out of reach; and it is, therefore, necessary to withdraw the frames for examination; hence we think the matter of bottom boards, permanent or removable, has no practical bearing upon the question.—Editor.

Cornplanter, Pa., March 1, 1904.

Editor American Bee-Keeper:

I am a beginner in bee-keeping, and would like to ask you how I may keep my bees from sticking the super to the body of the hive. Last summer they would stick them together so it was very hard to get them apart at all. The bees are in ordinary dove-tailed hives and have wild feed. I tried greasing the super but with poor success. Yours truly,

Alice E. Holmes..

Though it is a habit common to

honey bees to propolize all cracks and small openings about their abode, where hives are accurately made it seldom occurs, we believe, that any particular difficulty arises therefrom. Some localities yield propolis in greater abundance than others, and some bees are more lavish in its use than are other strains. Bee-keepers generally let them stick the supers as tight as they please, and then with a chisel or other similar instrument, pry it loose when removing the crop. It is said, however, that an application of hot paraffine upon the points of contact is an effectual preventive.—Editor.

Markham, Ont., April 12, 1904.
Editor Bee-Keeper:

We have had a terribly severe winter here, and losses in bees are abnormally large throughout Ontario. Only three or four days to date that bees could fly freely. No doubt conditions are much different with you. Cordially yours,
J. L. Byer.

Wheelersburg, O., April 12, 1904.
Friend Hill:

Our bees have wintered quite well, but the spring continues cold and backward. Peaches and pears are blooming though it is snowing a little today, and it is so cold that the bees do not dare stick their noses out of the hives. Well, my bees are on deep combs with plenty of honey, so I am not worrying.

As ever yours,
W. W. McNeal.

Upperco, Md., April 13, 1904.
American Bee-Keeper:

Please answer in the next issue of the American Bee-Keeper, Is rye meal as valuable as natural pollen for bees? Is it as healthy as natural pollen?

What size should the entrance of a good colony of bees be, through the winter on summer stands?

I remain yours very respectfully,
D. H. Zencker.

Rye meals is regarded as a very good substitute for pollen. It is, perhaps, as good as any known. So far as we know no reports have been made of detrimental effects upon the bees through its use. Bees prefer the natural product, however, when it is obtainable. An entrance three or four inches wide by three-eights high, has always proved satisfactory in our wintering experience out of doors.—Editor.

MARKET REPORT.

New York, April 18.—There are no new features in the honey market. Some white honey selling at from 12 to 13 cents, off grades at from 10 to 11 cents, and no demand for dark honey whatever. Market is very quiet on extracted of all grades and prices are rather irregular. Beeswax very firm at from 29 to 31 cents.—Hildreth & Segelken.

Kansas City, Mo., April 15.—Market for honey has improved during the last ten days and we believe all old stock will be cleared up by middle of May. The supply is limited with good demand. We quote our market today: Fancy comb, $2.35; choice, $2.25; Extracted dull at 5 to 6 cents. Beeswax in good demand at 30c.—C. C. Clemons & Co.

Buffalo, N. Y., April 15.—Cannot encourage shipments to Buffalo now. Demand and trade very dull. Quite fair stocks will have to sell low to clear up. Fancy, 12 to 13c; lower grades, 6 to 10c. Extracted, 5 to 7c; Beeswax, 25c to 32c.—Batterson & Co.

Chicago, April 7.—The market is heavily supplied with comb and extracted honey, neither of which are meeting with any demand, especially is this true of the comb. Prices are uncertain as those having stock are anxious to sell it; therefore it is difficult to quote prices. The best grades of white comb bring 11c to 12c, anything off from choice to fancy is not wanted. Extracted white, according to quality sells 6c and 7c, amber, 5c and 6c. Beeswax, 30c and 32c.—R. A. Burnett & Co., 199 S. Water St.

Cincinnati, April 18.—The honey market here is re-assuming activity, and judging from present indications, and the lateness of the season, the last season's crop will be consumed before the arrival of the new. We offer amber extracted in barrels and cans at 5 1-2 to 6 1-2 and white clover 6 1-2 to 8 cents according to quality and package. Fancy comb honey sells at 12 and 15 cents. Beeswax wanted at 30 cents.—The Fred W. Muth Co.

THE AMERICAN BEE-KEEPER

PUBLISHED MONTHLY
THE W. T. FALCONER MANFG. Co.
PROPRIETORS.
H. E. HILL, - EDITOR,
FORT PIERCE, FLA

Terms.

Fifty cents a year in advance; 2 copies 85 cents; 3 copies $1.20; all to be sent to one postoffice.

Postage prepaid in the United States and Canada; 10 cents extra to all countries in the postal union, and 20 cents extra to all other countries.

Advertising Rates.

Fifteen cents per line, 9 words; $2.00 per inch. Five per cent. discount for two insertions; seven per cent. for three insertions; twenty per cent. for twelve insertions.

Advertisements must be received on or before the 15th of each month to insure insertion the month following.

Matters relating to business may be addressed to
THE AMERICAN BEE-KEEPER,
Fort Pierce, Fla., or Jamestown, N. Y.

Articles for publication or letters exclusively for the editorial department should be addressed to the Florida office.

Subscribers receiving their paper in blue wrapper will know that their subscription expires with this number. We hope that you will not delay favoring us with a renewal.

A red wrapper on your paper indicates that you owe for your subscription. Please give the matter your early attention.

Editorial

THE PARALYSIS PROBLEM.

Our esteemed contemporary the Southland Queen usually quite affable, and always interesting, appears to be painfully goaded by our editorial comment on page 84 of the last issue, wherein we called attention to the fact that it had erroneously credited an article to Arthur C. Miller, which had been written for The Bee-Keeper by Mr. Poppleton.

By way of explanation, it is stated that the editor of the Queen had nothing to do with the matter. The article was selected by the printer, not because of its "eternal fitness," but just because it did fit the space required to fill the pape.r

Brother Atchley says :"It has appeared for some time that Bro. Hill has had a crow to pick with the Queen or its editor. What about I am unable to solve." The fact is, there is not a bee journal published in this or any other country towards which The Bee-Keeper has kindlier feelings than the Southland Queen and Bro. Atchley ought not to bristle up and show fight simply because The Bee-Keeper fails to absorb all its pet hobbies; and sometimes calls attention to its errors which affect us directly.

As to paralysis, Bro. Aatchley says further: "With all due respect and love for Mr. Poppleton and Bro. Hill, I beg to say that neither Mr. Poppleton nor The Bee-Keeper has put forth any more light on bee paralysis than all we old bee-keepers knew twenty years ago, and I am too busy now to take this matter up, and especially through a paper that uses its influence and partiality to make its points unfairly. If Mr. Poppleton desires to do so I will meet him before a body of competent bee-keepers at St. Louis next October and debate the question of bee paralysis and allow the judges to decide which is right. It may be that drones and queen have paralysis sometimes, but Mr. Poppleton ought to know that bees often feed queens and drones, and the vile .rotten pollen mess can be fed as well as honey, I can read plainly between the lines that Bro. Hill convinced against his will would be of the same opinion still."

We do not know just who were "all we old bee-keepers," of twenty years ago. Mr. Poppleton and the writer were upon the bee-keeping stage about that time; and if any one then knew that an outward application of sulphur was a certain cure for bee paralysis, we think the information was held sacredly secret. Maybe Mr. Atchley will tell us who had experimented with bee paralysis at that time.

The only "point" we have endeavored to make in this connection, is the one that sulphur is a cure for paralysis. We have labored to make this point for the benefit of our readers, because we believe it to be a valuable point to those whose bees are afflicted with this malady. We believe both the American Bee Journal and Gleanings have given the information imparted by Mr. Poppleton through these columns, very prominent mention, the latter even extending assurances of gratitude for our having specifically called its attention to this valuable information. Many other of the world's most prominent bee-keepers have acknowledged the value of the article, notwithstanding the fact that the Queen would have it appear that it contained nothing new.

Who is trying to make its points unfairly?

ARE YOU MAD?

The present incumbent of The Bee-Keeper's editorial chair has held it down now these six or seven years past, and just once has he been accused of wilfully wounding the feelings of those with whom he has discussion. The missive is just to hand and states, in substance, that we should curb the natural propensity to cruelly thrust our rusty pen through the vitals of those who differ with us, and that when we are old we will not be comforted by reflecting upon the "smart things" we have said publicly in our youth.

In view of this serious charge, we popose to hold a "court of inquiry," and urgently invite every reader who has, or ever has had, a grievance along this line, to turn in his evidence without delay. Send it to either the New York or Florida office—either will do, just so we get it at an early date. The result may be the reformation of a vindictive and malicious disposition upon the part of the editor, or it may cause him to abdicate the chair in favor of some one less vicious. However, we should like to know just exactly how many persons it has been our misfortune to offend in the way suggested. and if they will inform us we shall endeavor to afford them redress and supply a balm of Gilead for their wounded feelings.

Our esteemed critic unwittingly pays tribute to the brilliancy of thought springing from the mature mind, by his reference to the "smart things" we have said, for he evidently does not know that our once red hair is today sprinkled with white, and with eyes growing dim we look back over part of a century and contemplate with great cheer the possiblity of having ever said anything smart in our youth.

SHALL WE ADVANCE?

With reference to the editorial item, pages 18 and 19 of our January issue, wherein is discussed the limits of legitimate journalism, as relates to bee culture, a Florida correspondent takes occasion to confirm the sentiments there quoted. Says our contemporary is right and that "All I read the papers for is to find out how to get a good yield and how to sell at a living price."

Ever since the world has had bee journals they have, doubtless, all been aiming to supply such information. America has had at least one journal that has been at it continuously for some forty years, and many others have since joined the ranks. Does our esteemed correspondent observe any marked improvement in the "living price" proposition, as a result of what has been accomplished by skimming the surface of our field with the old wooden plow? Is it thought advisable to continue repeating mere mechanical methods of production and pointing first to this city and then to that, as a market for our honey, and meantime watch the steady decline of prices in the face of a rapidly increasing population and decreasing fields of forage for the bees?

As it appears to The Bee-Keeper, a very large per cent of honey producers are criminally indifferent in regard to the business end of their vocation. They seem quite content to sit by and see their product crowded into the corner and crushed into the earth by competing commodities much less worthy of success.

Is it not inconsistent to expect of a bee journal the ability to direct its patrons to markets more profitable than we have, and which are steadily becoming less profitable because of the bee-keeper's own lack of business enterprise? Too many bee-keepers appear to forget the fact that they are living in the twentieth century, and that business methods have materially changed since their grandfather's day. Competition is keen and exacting; and unless there is a grand awakening among the producers of honey at an early date, those now living may see their vocation, sacrificed beneath the ponderous wheels of a modern juggernaunt, styled "commercialism."

Success in the production of honey presupposes a general knowledge of the business, of course; but specific information in regard to many minute details is imperative, and the dissemination of such information usually devolves upon bee journals. An apiary infected with foul brood is, doubtless, less profitable than if it were in a healthy condition. In view of the prevalence of this malady, does it not behoove the bee-keeper to inform himself as to the advancement of science and practice in relation to its treatment? Florida, to as great an extent as any other State in the Union, has reason to thank heaven that among her bee-keepers are some who are not afraid of acquiring a surplus of apiarian information. It is but a few years past that the foul brood scourge broke out and bee-keeping interests of the east coast were seriously menaced; but, by the prompt action of one progressive apiarist, its ravages were staid and the last vistage of the infection eliminated from the state.

Knowledge, specific and general, is the foundation. "Good yields and living prices" will be a spontaneous outgrowth.

THE RURAL BEE-KEEPER.

We are in receipt of the first number of The Rural Bee-Keeper, River Falls, Wis., a monthly journal published at 50 cents a year, by W. H. Putnam, and containing 16 pages and cover. Said "cover" is dated March, 1904, while the other pages proclaim "April" as the date of issue. It is difficult, therefore to tell just when the "Rural" was born. However, it is gotten up in very creditable style, and starts off with a very handsome array of advertising, which is essential to the life of any periodical.

We do not agree with some of the older bee journals that the journalistic field in our line is overstocked, and we are therefore always pleased to welcome a new bee paper, and Brother Putnam has demonstrated his ability to get up a creditable claimant for support.

As Mr. Putnam invites criticism, we presume it is in order for us to indicate the weak point of the Rural Bee-Keeper, as it appears from our point of view: The habit of sandwiching in items in reference to goods offered for sale by the publisher of any trade journal, savors too distinctly of the "house organ" type of publications which is being turned down by the postoffice department, and it leaves a disagreeable taste in the mouth of the reader who reads for general information and not to learn of the merits characteristic of any particular line of goods.

Catalogues and price lists of supplies we believe to be somewhat out of place in the editorial columns of a modern trade journal. Commercial information and literary merit ought to be dished up separately. That is, so believes the American Bee-Keeper.

We wish the new comer abundant success.

We are in need of more good articles and photographs of interest for publication, and we are willing to pay for creditable material. It is not rehashes of threadbare axioms that we need (we have an ample supply); but rather new ideas and points that will be of interest to others who keep bees. We are still looking for those scribes of beedom who are to light the way in the future.

Someone said "one swallow does not make a summer," and it is as true that one colony of bees is insufficient to prove or disprove the characteristics of any race or strain, but as to the Punics being vicious, as is frequently stated, we cannot refrain from stating that our Punic colony is as docile as were ever any strain of golden Italians; and up to present writing they have been better honey gatherers than any stock in our yard. It is too early to speak positively as to their other virtues or vices, but, to be candid, we cannot at present restrain a feeling somewhat akin to enthusiasm in regard to these bees.

The Bee-Keeper has arranged with Mr. R. M. Bundy, Cleveland, Ohio, who is a microscopical expert, to make examinations for bacteria in suspicious specimens. The charge will be $1 for each specimen examined. We will endeavor to give proper care to any honey or brood supposed to contain foul brood or other disease germs which our readers may send us, and report the result in the Bee-Keeper.

Twenty-two years ago last winter, W. Z. Hutchinson made bee hives, using old lumber from the hay mow as bottoms, lath for sides, and shingles as a roof, and he is to this day advocating the home-made hive. This is evidence prima facie that Brother Hutchinson is endowed with forbearance, patience, calmness, composure, endurance, fortitude, leniency, long-suffering, resignation, submission and sufferance to a degree that amply merits all the success he has achieved in the realm of apiculture. We no longer wonder, however, that he has decided to withdraw from the ranks of the practitioner and henceforth confine his efforts to the mere advocacy of hand and home-made hives. The quietude of the Review sanctum is a solace worthy of his virtues.

The possession of an observation hive would put an end to guessing in many instances, and enable the apiarian student to speak with confidence upon points now more or less obscure.

A Texas subscriber who writes of his appreciation of The Bee-Keeper, thinks more space should be given to the discussion of matters relative to the South, and asks if a page may not be devoted to the novice in bee culture. We have repeatedly assured our friends, the beginners, that our columns are open to them, and their letters always receive careful attention. If more would write, more space would be devoted to their letters. They need not be restricted to one page; we shall try to take care of all seekers after apiarian knowledge that may apply. We hope to hear from the beginners more frequently. All are welcome, whether living in the North, South, East or West.

I like the Bee-Keeper very much and enclose $1.50 on subscription account.—L. H. Dawson.

I like the way The Bee-Keeper is conducted, and admire it fearless way of setting forth matters pertaining to our pursuit.—T. S. Hall.

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The Bee-Keepers' Review

For 1904

THE Review never had more subscribers, better correspondents, greater mechanical facilities, or a more experienced editor; in short, it was never more fully equipped, than at present, for helping bee-keepers. It will use all of these advantages the present year in taking up and discussing two of

The Most Important Subjects

connected with bee-keeping, viz., the production of large quantities of honey, cheaply, and the selling of it at a high price. The first few issues of this year will be especially devoted to the discussion of the first-mentioned topic, then, in July or August, marketing will be taken up and continued through the year. I do not mean that other important matters will not be touched upon, but that special attention will be given to these two.

For instance, last year, Mr. F. E. Atwater, of Boise, Idaho, with only one helper,

Managed 11 Yards

scattered from seven to eighteen miles from home, and in the January Review he had a long article describing the hives, implements, and methods, that enabled him to accomplish this feat.

Mr. E. D. Townsend, of Remus, Michigan, is

The Most Extensive Apiarist

in this State; managing out-apiaries with the least possible amount of labor, much of it unskilled at that, and making money out of the business, and he is telling the readers of the Review "how he does it." Four articles from his pen have already appeared and there are three more on hand. More will follow on marketing and wintering.

Another correspondent, over the finding of which the Review is congratulating itself, is Mr. E. W. Alexander, of Delanson, New York. He has had nearly

Fifty Long Years of Experience

with bees. His locks are white, but his eyes are bright, his step elastic, and he still has the fire and enthusiasm of youth. His views on overstocking are certainly radical, and it is possible that they are not applicable in every locality, but some ideas that he advances, and the experience that he gives, are certainly worthy of consideration. This month he tells how to make the most out of weak colonies in the spring, and how sometimes it is possible by the right kind of feeding in the spring, to change what would have been a season of failure into one of profit. A simple, inexpensive, convenient method of feeding is described. The next month he will describe his tank and methods for disinfecting combs from colonies infected with black brood. By his thoroughness, he has been successful on a large scale.

The beginning and the end of the honey season are

Critical Points.

To induce the bees to promptly take possession of the supers, to wind up the season with nearly all of the sections completed, yet lose none of the honey that the bees can store, are most desirable accomplishments; and James A. Green, of Grand Junction, Colorado, has sent me an article telling how all these things may be managed by what he calls his "Combination System." It appears in the April issue of the Review.

Mr. M. A. Gill, of Longmont, Colorado, last year, with the assistance of his wife, and one other helper, managed 1,100 colonies, increased them to 1,600 and shipped.

Two Carloads of Comb Honey.

Within the next month or two the Review will publish an article from Mr.

Gill in which he tells exactly how he manages—particularly in regard to the swarming-problem.

Sold 20,000 Pounds.

When it comes to the marketing question, I have on hand an article by Mr. H. C. Ahlers, of West Bend, Wisconsin, in which he tells in detail how he has built up a trade in selling extracted honey direct to consumers, in which he last year sold 20,000 pounds, and most of it at 12 cents a pound.

The Honey Market

is something that many of us have neglected as too small to be worth noticing, especially if it is only a small town, but our energetic General Manager of the National Association, Mr. N. E. France, of Platteville, Wisconsin, manages to sell about 8,000 pounds a year, if I remember aright, in his little home city, of only 4,000 inhabitants. He does no peddling, it is all sold at the groceries, butcher shops, and the like, and he so manages as to get eight cents a pound for it. What that management is, how the honey is put up, the package, in fact, the whole modus operandi will be described by Mr. France in the Review, long ere the time comes to put this year's crop on the market.

A Honey-Route,

in something the same line as a milkman has a route, has been inaugurated and put into practice for several years by Mr. C. F. Smith, of Cheboygan, Michigan. There is no peddling about it. On certain days, except during the busy time of the year with the bees, Mr. Smith goes over a certain route, calling at certain houses and delivering a certain amount of honey. In this way he sells all of his own extratced honey at 13 cents a pound, and then buys and sells thousands of pounds besides. How the honey is put up, how the route was established, how he knows at which houses to call, and how much honey to bring, etc., will be told to the readers of the Review in an article that Mr. Smith is now preparing with much care as to detail and helpfulness.

So much in the way of retailing honey, and we now come to the subject of selling honey direct to retail dealers, instead of sending it to commission merchants, who, in turn, sell to the retailers. This is

A Big Field,

and one that has been little worked, but I have found a man who has had a lot of experience in this line, Mr. S. A. Niver, formerly of New York, but now of Chicago. For several years, quite a number of extensive bee-keepers near Gorton, New York, turned their crops of comb honey over to Mr. Niver, who graded and crated it, and then packed a case with samples, and went out as a "drummer" selling direct to the retail trade, going over the same ground more than once, taking orders and collecting for the honey. I have an article from Mr. Niver telling of his success. It is long, readable, full of humor, and of suggestions for some man to go and do likewise. Mr. Niver is now at work preparing an article on retailing honey to city customers.

The foregoing are only a few of the good things that are in store for the readers of the Review—these are given simply as samples. The prospects for

Making Money

in bee-keeping were never brighter for the man who will arouse himself, wake up to the changed conditions of things, and take advantage of the changes. One thing is certain, if you are a bee-keeping specialist, if bee-keeping is your business, you can't afford not to

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W. Z. HUTCHINSON

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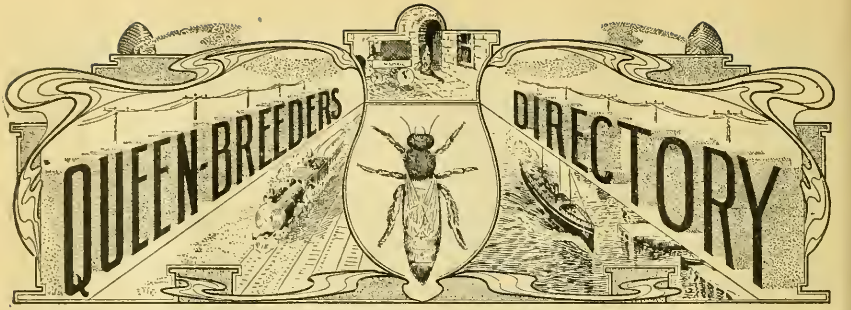

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JUNE

1904
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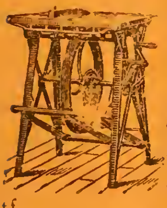

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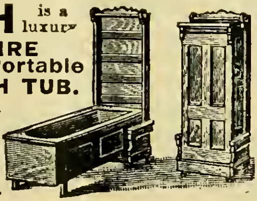

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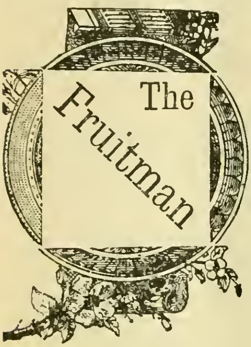

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THE AMERICAN BEE-KEEPER

Vol. XIV JUNE, 1904. No. 6

QUEEN REARING.

The Method Used by a Texas Breeder.

By John W. Pharr.

OUR way to prepare a colony for cell-building is to remove the queen and all the brood, and two hours later give them prepared cell-cups, or else transfer the larvae into the lower cells of a newly drawn comb. We prefer the former, however, as they are better to handle. We use the Doolittle plan, not because it is better than the Alley or Atchley system, but because it is more convenient.

In order to get good cells and a lot of them built, there must be a honey flow on, or else it is necessary to feed your colony from two days previous, to four days after the operation is performed. By this time the cells will be sealed and you can transfer them to the nursery cages or give them a laying queen. But, before giving the laying queen you should give them a frame of cell-cups or a newly drawn comb which has been grafted with larvae from your breeder. This should be done twenty-four hours before giving the queen. They will begin feeding the larvae much sooner than will a colony just made queenless.

Now go to another colony that you wish to set to cell-building and take away its queen and brood and bring it to this colony, and take the frame of cells which they have started to the colony from which you took the brood and queen. By this means, the colony has been queenless but five days.

After getting a lot of good cells built, the next thing is to care for them. Our cell cages are prepared as follows: Take a strip of wood, three-fourths by one-half inch and cut length to fit between end-bars of brood frame. Now cut half way through the strip saw kerfs to make twenty compartments, which are separated by partitions made of section material and fitted into the saw kerfs. Now cut a piece of wire cloth to fit each side. To provision these you can bore a hole in each compartment and use soft candy; or you can shave a piece of comb down to the mid-rib and fill with honey, allowing it to rest on the bottom bar.

Now cut little caps to just fit between the partitions and will fit tight. These ought to come a little above the wire-cloth side-walls. Now dip the caps into melted wax and stick your cells fast, and place them in the cages until you have it full; then fasten it in a brood frame with a small nail. If you use cages that have holes in the bottom-bars, you can put three in one frame.

Now, to get these cells hatched is where the trouble comes. Be sure you place the nursery where the bees will cover it entirely. Do not place it in a queenless colony, as some have advised. Put it between frames of open brood where it will get the warmth and moisture. This gives us the best hatch. When hatched, they are ready for the nuclei.

I know there are many who want their cells to hatch in the nucleus hive, but we hold our queens in the nursery cage until they are four days old, then sucessfully introduce them by using fresh queenless bees every time. Here is where another great mistake has always been with me, and I know I learned it from others, and that is having a permanent nucleus. For best results never use the same bees for accompanying more than one queen in the nucleus hive. Some one is ready to say, "That would be a great waste of bees." This is another mistake. When your queen begins laying, bring in your nucleus, bees and all, shake them into another hive, give them a frame of brood and a laying queen and you will soon have a good colony. Another says; 'That is handling a lot of bees to get one queen mated." Here I want to say that this is where another mistake comes in. Two tablespoonfuls of bees are plenty to accompany a queen while in the nucleus hive. Some claim that our queens will not be as good by that process. It is the rearing, not the number of bees in the colony at mating time that counts as to quality.

To get queens mated with few bees it is best to have small boxes or hives. I use a frame four of which fit into a brood frame. By this means I am able to get them filled with honey easily, and when I want to use them I put them in boxes made to fit, stock them with bees and run in a virgin queen four days old, haul a hundred or so out to a mating yard, and seven days later prepare another load and haul them out and bring back the ones I took before. If the weather has been favorable they will be laying. If not, I can pitch them out in any old place until they are ready to mail.

Now, the success of this plan is in using a few bees to mate a queen and the using of these bees but once for this purpose.

The Swathmore plan was far ahead of the old plans; but this plan is as far ahead of Swathmore's as was his ahead of those prior. The reason is this: While he used a colony to mate eleven queens, I mate one hundred with the same amount.

Fraternally submitted.

Berclair, Texas, Nov. 4, 1903.

When W. L. Coggshall established his apiary in Cuba, he started from New York with 200 colonies and arrived with exactly the same number. This noteworthy achievement is a result of practical knowledge. They were confined fifteen days.

FORMING NUCLEI.

By W. W. McNeal.

WITH the permission of the editor I will here state some things that I have found out about forming nuclei.

I regard a few good, strong nuclei as being a very necessary adjunct to the apiary; in fact, it seems to me now that I could hardly get along without them, but as a rule, I find it does not pay to try to form them before the arrival of settled warm weather. One queen will produce more bees in a colony where conditions are normal than will a half dozen queens were said colony divided up into that many small ones, while the weather is yet cool and unfavorable. Haste will surely make waste in all work of this kind if the day on which it is done is not warm and the colony or colonies have not been prepared for it.

The usual difficulty encountered is the disposition on the part of the bees to return to the old location whereupon many bees are sure to be lost if a cold rain were to blow up at the time. So, again, I would say, wait till the air is warm and sweet with the scent of bud and blossom before you attempt to launch a nucleus colony for profit instead of pleasure.

Now, as to getting a colony ready for dividing its forces. it is very necessary to create a desire to swarm. You see there attachment for home is, by this means, broken and all we have to do is to scatter the little colonies about the yard where we want them to remain. The parent colony should be made very strong by systematic feeding begun as early in the season as practicable. Not more than one super should be given for the more room the colony has the longer will preparations for swarming be retarded. However, when queen cells are started, either naturally or from artificial cell-cups as the apiarist dictates, they should not be taken from the colony till the young queens are ready to emerge.

Of course, the colony will swarm if the weather is suitable, as soon as the cells are capped, but they must not be allowed to have their own way at that stage of the game. Those queen-cells must be kept good and warm for proper development, and this can only be done by keeping the colony together till they hatch. Just enough bees should be taken from the swarm to start a nucleus with the old queen, while the remainder are to be returned to the hive from whence they came. Now if there is any available hatching brood that can be spared from other colonies in the yard, give it to the now queenless colony or colonies that the desire to swarm may become rampant. This will cause the workers to guard the unhatched queen-cells from the attacks of the first queens that emerge from the cells; otherwise they might be allowed to destroy a portion of the cells were the weather to turn cool about that time. An entrance-guard of perforated zinc should be attached to the hive to prevent the swarm running away in the event that other matters demand your attention much of the time when the bees do. This treatment insures strong, vigorous queens whereas if the colony were broken up as soon as the cells are capped, the embrygo queens are tumbled about in their cells, and then the cells are often deserted by the bees on cool nights after they have been placed in the little colonies which invariably results in very inferior queens. Bees that do not have a desire to swarm, but instead are devoted to home interests, having a good laying queen, are very presistent about returning to the old location. In such cases it is almost impossible to hold the older bee with the nuclei if neighboring hives are close to where the parent hive was and resemble it in appearance.

Tall grass, weeds, or little sticks of wood placed against the front of the hive, in fact anything that obstructs the entrance somewhat, is a great help, for it causes the bees to turn and mark their new location upon leaving the hive. But it is better to break the tie that binds them to home and its sweetness before any artificial increase is made in crowded apiaries.

Wheelersburg, O., April 12, 1904.

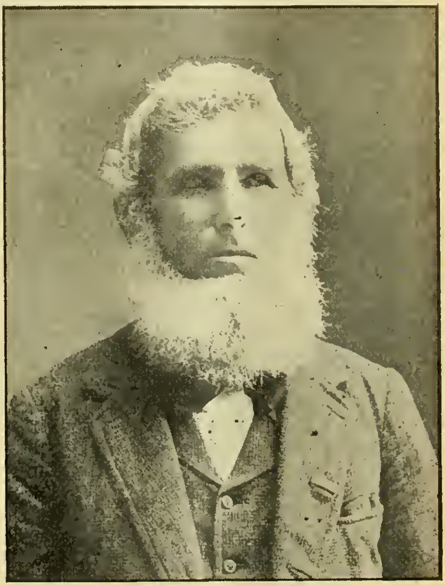
We are arranging a Honey Dealers' Directory for continuous publication in these columns. If you buy or sell honey, please write for particulars.

THE PREVENTION OF INCREASE.

By C. Theilmann.

MUCH has been said and written in regard to methods to prevent the increase of colonies. I have tried a number of these without satisfaction, but during the past eight or ten years I have practiced a plan which is very satisfactory to me. It is as follows:

By way of preparation, I clip one wing of each queen in the apiary before they become very populous in the spring, as they are then easier found. This prevents the escape of swarms, as the queens cannot fly, and they are easily picked up on the ground as they crawl about before the hives when swarming. They are caged and laid before the entrance until the swarm comes back, which it will do as a rule. Even if four or five swarms cluster together, they will separate and go back to their respective hives if the queens are not with them. The caged queens are either killed or left at the entrances until some place is found



MR. THEILMANN.

where they may be used to advantage. If they are good ones, they are sometimes left at the entrances two to four weeks, and then introduced to other colonies which are headed by inferior queens.

Only a few days ago a queen was introduced successfully which was been cared for at the entrance of a hive from the first until the twenty-ninth of July and the young daughter was meantime laying briskly within.

On the seventh of eighth day after swarming I go through the hive, and as a rule find one or more queen-cells hatched out, then I cut out all the remaining cells; or even if none are hatched, I cut them all out just the same and lay a number of the ripest ones before the entrance for the bees to care for until hatched. The first to hatch enters the hive and becomes the reigning queen—killing all the young queens that may enter after she has taken possession.

If cells are cut out before the sixth or seventh day after swarming, the workers may start other cells from the latest larvae; that is, the youngest larvae in the hive.

The critical time is when the young queen takes her flight, as often the bees swarm out with her and may become mixed up with other swarms which may be in the air at the same time, and thus all may escape with the young queen. However, if no other swarms are out at the time, they usually go back to their own hive all right. But if they do get mixed in this way, I allow them to cluster and put them into a swarm-box and divide them among the hives from which they came. If I am doubtful as to whether any one lot has a queen, I simply give them one or two of the cells cut out, as mentioned in the foregoing, and of which I have a lot on hand in the apiary at swarming time. In this way there will be but few queenless colonies in the yard after swarming time; and the colonies can be kept strong, which is absolutely necessary for the production of comb honey.

Theilmanton, Minn., Aug. 3, 1903.

Our offer of the American Farmer one year free to all subscribers who pay a year in advance for The Bee-Keeper, still holds good.

THE "WESTERN ILLINOIS".

Report of April Meeting.

By J. E. Johnson.

THE beekeepers' society that was organized in Galesburg, Ills., last January, met in the county court room in Galesburg April 30th. To broaden the scope of the organization, the name was changed to "Western Illinois Bee-keepers' Association."

The question box was the principal feature of the meeting, it being the best way to draw all present into the discussion. The question of wintering was pretty thoroughly discussed. We have had a very hard winter on bees and an exceptionally backward, cold spring.

Reports on wintering were as follows: One bee-keeper had last fall seventy colonies in chaff hives, wintered on summer stands and lost all but seven. It was thought that moisture collected and froze and closed the entrances. This man was an up-to-date bee-keeper of thirty years experience. One member had eleven colonies last fall in single walled hives packed with cushion on top. No other protection except good wind-break. He left entrance three-eights deep open clear across the hive and only lost two colonies. Nearly all lost a part of their bees. I myself lost nineteen out of fifty-five colonies, mostly from spring dwindling. Only lost eight or nine up to April 1. One member wintered sixty colonies in cellar. Set them out February 6 and had three weeks of zero weather afterwards and only lost seven colonies; but they became pretty weak from spring dwindling. We had no warm days from November 7 till February 5; so that bees had not a real good flight for nearly three months

Judging from average results it would seem that bees must have considerable ventilation even in extremely cold weather.

I had three third swarms in hives, a La Aikin, two Ideal supers of eight frames each, and they came through the strongest of any I have. One was covered with newspaper on three sides the other two only cushion on top of frames. There was some chance for air to come in between papers, and bees could move easier between lower and upper combs. Owing to early cold weather I did not cover, but one-half my hives with newspapers. Those covered on four sides suffered most from dysentery and dampness. Eight colonies in cellar came out well, but lost three from dwindling.

I have concluded—judging from my experience of this exceedingly hard winter—that I shall next fall cover all hives with four or five thicknesses of newspaper on east, north and west sides of hive; but leave south side without. I live on a hill with no windbreak. We have not known that there was any foul brood near us, but one new member reported that he has had foul brood for fifteen years only about eighteen miles from Galesburg. In fact foul brood killed all his bees about ten years ago, so he had given up bee-keeping, but last year bees came and took up their abode in his hives so he now has sixteen colonies. Bees showed no sign of disease last fall but this spring one colony shows disease. We shall endeavor to wipe out the disease if possible.

Our meeting was very interesting and all members felt well repaid for coming. We are gradually adding new members, in fact one man sent membership fee and asked to join although he lives in an adjoining state (Iowa). So we have begun to feel real proud of our new association. Gatesburg is a town of about 20,000 population, several railroads and several suburban street car lines so that people can reach that point conveniently. We voted to join the National Association in a body. Our next meeting will be at the court house on the third Tuesday of September, 1904.

All bee-keepers within reach of Galesburg should attend. All are cordially invited.

Williamsfield, Ill., May 10, 1904.

ANTICIPATED SWARMING.

By Adrian Getaz.

WHAT we call here now "brushed" or "shook" swarms are called in Europe "anticipated" swarms. Two methods have been in use there for quite a number of years. The first is called anticipated swarming by single permutation. It is exactly the process used here and needs not to be described. The second is much the best and is called anticipated swarming by double permutation.

To explain it as clearly as possible, let us suppose that the apiary contains only two hives and an unoccupied stand thus.

Hive No. 1.	Hive No. 2.	
Stand No. 1.	Stand No. 2.	Stand No. 3.

When the time to operate comes the hive No. 2 is placed on stand No. 3. The queen and all the bees of hive No. 1 are driven out and put in a new hive on their own stand. They constitute a swarm just in the same condition as those made by single permutation. The hive No. 1 thus deprived of its bees and queen is then placed on stand No. 2 and receive there the field bees of the hive No. 2. We have then:

Swarm	Hive No. 1.	Hive No. 2.
Stand No. 1.	Stand No. 2.	Stand No. 3.

Eight days later the hive No. 1 being without queen, will have a number of queen cells. It is then put on stand No. 3 and the hive No. 2. brought back to its place. We have finally:

Swarm.	Hive No. 2.	Hive No. 1.
Stand No. 1.	Stand No. 2.	Stand No. 3.

Now for the advantages of this method: The swarm on stand No. 1 is in the same condition as those obtained by single permutation. But the hive No. 2 on stand No. 2 will give a much greater surplus than would a forced swarm. It has had a field force and a brood nest all the time. Having not to rebuild a brood nest it can work in the surplus boxes much more than a forced swarm; and finally the absence of its queen during the eight days that the brood nests were exchanged, has killed the swarming fever completely.

As to the hive No. 1. now on a new stand, it has no field force, has lost a large number of emerging bees while it was on stand No. 2 and will requeen out of its queen cells without danger of swarming.

This method is the invention of Mr. De Vignole, of Belgium. I might add here that there is no hunting of queen and no queen cells to cut out when using it.

Knoxville, Tenn.

Tell others of your successes and failures and the reasons.

PENNSYLVANIA STATE BEE-KEEPERS' ASSOCIATION.

Pursuant to a call for a convention of the Bee-Keepers in Pennsylvania a number of persons met at Williamsport on April 12, and organized the Pennsylvania State Bee-Keepers' Association with the following officers: President, Prof. H. A. Surface, State College; 1st Vice President, E. E. Pressler, Williamsport; 2nd Vice President, W. A. Selser, Philadelphia; 3rd Vice President, J. N. Prothero, Dubois; Secretary, D. L. Woods, Muncy; Treasurer, E. L. Pratt, Swarthmore; Executive Committee, Richard D. Barclay, State College; Charles N. Green, Troy; Prof. E. N. Phillips, University of Pennsylvania, Philadelphia; E. A. Dempwolf, York, and John D. Costello, Harrison Valley.

The cheif purpose of this organization is to promote Apiculture in Pennsylvania and it is to be accomplished by efforts made along the following lines: (1) To secure legislation for the promotion of bee-keeping. (2) To suppress the diseases of bees, especially foulbrood, by legislation and by the appointment of a competent State Inspector with deputies or assistants. (3) To secure and promote instruction in bee-keeping at Farmers' Institutes. (4) To secure a series of lectures at the normal session for Farmers' Institute Lecturers to be held in Bellefonte next October. (5) To make it possible for persons to obtain instruction in apiculture at the Pennsylvania State College. (6) To induce and promote investigation and experimentation in apiculture at the Pennsylvania State Agricultural Experiment Station. (7) To induce and promote investigations and publications by the Division of Zoology of the Pennsylvania State Department of Agriculture. (8) To enforce the laws of Pennsylvania against adulteration of honey. (9) To secure laws against spraying fruit trees while in bloom. (10) To obtain statistics concerning bees and bee-products within our state. (11) To enter upon a crusade of apicultural education in this State, both for producers and consumers of honey. (12) To instruct fruit growers and farmers as to the practical value of bees as fertilizing agents for their plants, and to show the fact that they are wholly beneficial and never injurious. (13) To raise the rank of Pennsylvania as a honey-producing State from fourth in the Union to first, if possible. (14) To band together all the bee-keepers of the State for the purpose of good fellowship and that strength, which is to be obtained only by union. (15) To make it possible for all persons who are not now keeping bees to add to their revenues by the production of honey, and to increase both the quantity and quality of the honey produced in this state.

The Association desires the name and address of every man in the State who has one or more colonies of bees, and for this purpose invites persons to correspond either with the President or the Secretary stating the number of colonies or hives kept, and giving statistics as to the amount of honey and wax produced each year. The membership fee is only one dollar per year, which also entitles the individual to membership in the National Bee-Keepers' Association, and gives him special protection and assistance at any time it may be required. For example—if a member of the National Association becomes involved in litigation the National Association will furnish expert testimony and counsel such as may be necessary to secure equity in the courts of justice.

This commendable undertaking should receive a large membership, and all persons interested are invited to send their names, addresses and fees to the secretary, and these will be registered and receipted.

The next meeting will be held in Harrisburg during the first week of December when several papers will be presented by practical and expert men bearing upon the various problems of bee culturists in our State.

Correspondence is earnestly solicited.

H. A. Surface, President,
Harrisburg, Pa.
D. L. Woods, Secretary,
Muncy, Pa.

"The sample copy of The Bee-Keeper came to hand yesterday and it is just exactly to my taste."—J. J. Engbrecht.

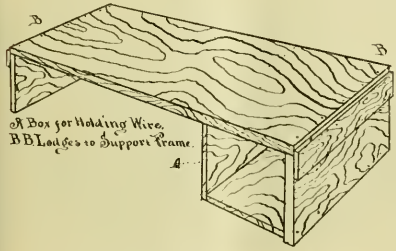
All supplies necessary for the season should be now on hand.

WIRING FRAMES, ETC.

By Robert H. Smith.

IN THE January number of your valuable magazine, Mr. Jameson tells of a very attractive manner of wiring brood frames. I have been picturing to myself how nice it would be to stand in the shade of one of the grand old maples back of the house swarthed in a fur coat, with the balmy March breeze gently slipping icicles up and down my spines and the thermometer registering zero or below. So much for nonsense, now for business.

Mr. Jameson's plan is indeed an admirable one, I should think for a warm climate like California, or for New York either, if the brood-frames are wired during the warm months; but nearly every bee-keeper likes to get his hives ready during the winter when the work in the "yard" isn't crowding him. I think my plan will appeal to such as these.



SMITH'S WIRING DEVICE.

I have a small table-like contrivance the exact size of the inside of a brood-frame. At each end there is a cleat nailed which lets the frame slip down just half way. My frames are staple spaced and for the Hoffman frames these end cleats would have to be cut away to allow for the projections on end bars.

Underneath this table-top construct a box large enough to hold your spool of wire when lying on its side. Now hold your table in front of you with the box at the right hand end and near the corner drill a small hole. A slide door can be arranged for the door if you like to keep the wire from falling out. However, mine has never bothered me in this way. When you are ready to wire, slip your spool into the box so as to unwind from the top side, thread the wire through the small hole before mentioned, and go ahead.

I wire my frames in the regular manner and drive both tacks to hold the wire after the frame has been laid on the contrivance that I have described, the frame being laid on with the top-bar from me and the tacks driven in the right hand end-bar in every case.

Have a system and you will be surprised how much faster you will get along than to go at your work hap hazard. Folding paper trays for section cases is another slow job. Try having a board cut slightly smaller than the inside of your shipping cases, fold the paper on this and fasten them with sealing wax or something similar.They can be folded up during the winter and packed away and will all ready for the fruit bloom honey that I hope you will get.

Brasher Iron Works, N. Y., March 6, 1904.

CYPRIANS AND OTHER RACES.

A Reply to Dr. Blanton.

By Arthur C. Miller.

FROM Dr. Blanton's article in the Bee-Keeper for May, I infer that he had a particularly vicious strain of Cyprians. On the other hand I have what may perhaps be considered a particularly tractable strain. From observation of the race I believe it is more variable in temper than any other race except the "blacks." In all parts of their work the race shows great uniformity, variation seeming to lie almost wholly in temper. The queens are remarkably prolific, the workers are excellent honey gatherers, rapid and uniform comb builders and protect their home from robbers in a very gratifying way. Pure Cyprians do not make attractive comb honey, but for producers of large quantities they can not be excelled. If the race should be bred with the same care and selection that has been given to the Italian, I believe it would excel anything we now have. Perhaps it might be necessary to introduce the blood of some race which capped the cells whiter in order to improve them in that respect, just as has been done with the Italians to improve their laying and color. Such admixture is seen even in the imported Italians, and it is usually decidedly to their advantage.

I do not believe that any of the races in their purity are in all ways suited to all persons and localities, or that any one of them is an all-purpose bee.

I believe the quickest advance can be secured by crossing different races and strains, and acting on that belief I have for years introduced new blood into my apiaries. I began with a strain of Italians which I liked. When ever I got a new strain that showed promise of virtues, I crossed them on what I already had. Later I used Carniolans and still later Cyprians. The latter seem to be the strongest blood of all, and they have proved the most valuable for raising the grade of whatever strain they were crossed with. In crossing great care and pains must be exercised in selecting in order to secure the best results, for variation induced by crossing is quite as likely to be in an undesirable as a desirable direction.

Blacks, Cyprians, Carniolans and Italians all have points of excellence and all have faults, and strains of each race vary so that it is unsafe to extol or condemn any race by the trial of only one strain.

While my article on the use of smoke seemed to reflect on Dr. Blanton's ability in manipulation, it was not so intended. I simply used his record of experience with the Cyprians as a text. Dr. Blanton has had far more experience in handling bees than I have, and I have great respect for his abilities; also I have often received much aid from his articles. If I offended him, I beg to apologize.

MR. WILLCUTT IN HIS APIARY.

Providence, R. I., May 17, 1904.

Do us the kindness to always mention The Bee-Keeper when you write to any of our advertisers.

SMALL PACKAGES FOR EXTRACTED HONEY.

By A. E. Willcutt.

IN building up a home market for extracted honey, I find it a bad practice to sell in large packages to the consumer. The gallon can is too large, for this locality at least.

I sell more extracted honey in quart Mason cans, than in any other package, and consider it one of the best packages for extracted honey. The pint can is a good seller but costs nearly as much as the quart and for this reason I do not use itas a regular package. For a small package I use the jelly tumbler and this, too, I find to be a good seller. And if properly put up will not leak.

I see some are having trouble with the Mason can on account of its leaking honey. I, too, have had some trouble of this kind, but it was when I failed to put it up in "proper style." If the honey is put in the cans hot, and the covers well screwed down, I have no further trouble with them, and the honey does not "ooze out under the covers". The covers sometimes get jammed or imperfect; if such covers are used trouble may follow.

In the past, I have had a few customers who preferred to buy honey in gallon cans; I suppose on account of getting it a little cheaper. Last fall I called on one of these and tried to sell them some honey. But they said, "No, I guess not, I think we have some of that we got of you a year or two ago." No sale.

ANOTHER VIEW OF MR. WILLCUTT'S APIARY.

Now, I think that if I had sold this party, only a quart can of honey at each call, I would still be selling to them in "small doses."

A few such cases as the above have fully convinced me that the quart can is a large enough package in which to retail extracted honey. With one or two exceptions, I find that where people commence eating honey in a wholesale way, they very soon tire of it and want no more, for a while at least.

Swift River, Mass., Feb. 18, 1904.

HONEY PLANTS.

By C. S. Harris.

SHORTLY after becoming interested in bees I made quite a number of experiments with the seeds of various nectar secreting plants and plants and weeds from the north, with the hope of adding to the natural bee-pasturage about me. This, so far, I have not succeeded in doing, but it may be of interest to mention some of the plants tried and the results.

Sweet clover was the first and perhaps the most extensive experimented with, but, while it seeded itself, it could not contend with the natural growth about it and would finally be crowded out.It made a vigorous growth on our hammock lands and even on the lighter sand made a fair growth of from three to four feet. Unlike its habit north, it bloomed here the first season. The bees gave it but little attention. I am speaking of the white flowered. The yellow variety grows here naturally in abundance, but I have never seen a bee on it.

Alfalfa I found very difficult to get established, owing to the delicacy of the young plants, but I succeeded in growing several beds of it five or six feet in width and fifty or sixty in length. It bloomed nicely and the bees worked on it lightly at times. It died out gradually within three or four years from the time of planting.

Of catnip, Simpson's honey plant, borage and some other things, I succeeded in growing a few plants, but they were not of strong growth and not in quantity enough to attract the bees. Cleome grows well, particularly on hammock soil, and is a generous yielder of nectar, but would not take care of itself and must be cultivated for its nectar alone.

Mustard and seven-top turnips are of free growth on hammock land and the bees always work well upon the bloom. The sunflower does finely some seasons, but the seed, as a rule, does not fill out well, although the bees work faithfully upon the blossoms.

Crimson clover made a fine growth, bloomed freely and the bees worked strongly upon it. I hope to give it a more extensive trial sometime in the future.

Of all the plants I have tested I think perhaps the sunflower, crimson clover, buckwheat, velvet bean and mustard might be worth cultivation for their nectar in connection with their crop value in other respects.

I have tried about all of the clovers and so-called clovers and think the crimson the most promising here. White clover grows and seeds itself to some extent along the road sides in low ground, but does not do so well in the field.

Holly Hill, Fla., Nov. 2, 1903.

The "Irish Bee Guide" is the name of a new work on apiculture just from the press. Its author is our friend and brother editor, Rev. J. G. Digges, M.A., of the Irish Bee Journal, and member of the examining board of the Irish Bee-Keepers' Association, composed of experts. The work comprises 210 pages, with 150 illustrations, and is the most exhaustive treatise on apiculture ever issued in that country. We have not yet received a copy, but are anxiously awaiting its arrival, as we are familiar with Dr. Digges' entertaining and instructive style.

The St. Croix Valley Honey Producers Association was recently organized in Wisconsin. The management of the new organization is in the hands of that hustling apiarist, Leo F. Hanegan, of Glenwood. In the circular which is being put out by the Association the American Bee-Keeper is said to be the "best bee journal for the price in the United States." Thanks! We hope the St. Croix boys may help us to make it even better.

June is here and we are now ready to "do things".

W. M. Gerrish, R. F. D., Epping, N. H., keeps a complete supply of our goods, and Eastern customers will save freight by ordering of him.

The W. T. Falconer Mfg. Co.

THE Bee-Keeping World

Staff Contributors: F. GREINER and ADRIAN GETAZ.

Contributions to this Department are solicited from all quarters of the earth.

ENGLAND.

"During a good honey flow," says the British Bee-Journal, "ten thousand bees can carry into the hive one pound of honey at one time. During a moderate flow it may take 40,000, and where the flow is extra good perhaps some less than 10,000 may do it. We calculate 20,000 to be the average."

The catkins of the hazelnut bush are not visited by bees in England, so it is claimed by Skinner in British Bee-Journal. It is so in North America, while in Germany bees gather pollen from them.

NORWAY.

Dr. Astrup found many different kinds of insects as high north as the 83rd degree of latitude. Among them he found honey bees, and he is satisfied that there are bees at the North Pole. As the sun does not go down in six months at the Pole, he thinks that bees would have a splendid opportunity to gather honey, etc., from the bloom. (Central Blatt.)

GERMANY.

The winter in Germany has been a very mild one.

Very best "Table Honey" is now being offered in Germany in the form of a white powder under the name of Fructin.

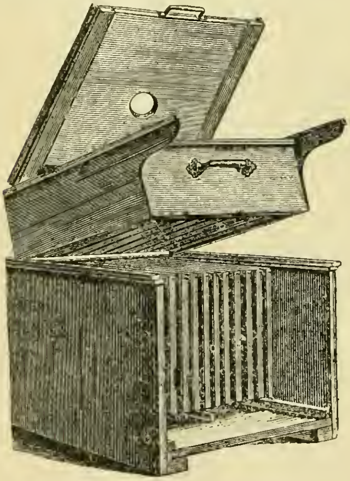
Brossard speaks in Thalz. Bztg. very enthusiastically about heating of bee-houses. As is well known, a very large number of apiaries in Germany are house-apiaries, which can easily be warmed up, if thought of advantage. Renner speaks of water and steam heating as being satisfactory. By using a regular heating stove (coal) the cost of heating his house apiary of 63 hives during a pear (from November till June) is only about $5.00 to $6.00, says Brossard. He saves about 50 cents worth of honey per hive each year. Besides bees can reach the honey in a warmed bee-house, no matter in what part of the hive it may be. They never starve as long as there is a drop left anywhere. Bees may be fed successfully, no matter how cold it is. To increase the number of colonies is an easy matter, etc. He predicts this method of wintering bees to have a promising future.

Mentzer has the following to say in Pfilzer Bztg. about the management of bees before swarming time: "At the end of March or beginning of April the apricot, cherry, plum and pear send out their blossoms. Should the weather be favorable during this time, stimulative feeding is superfluous. It is a good plan to uncap the sealed stores from time to time; it will increase the activity. During unfavorable weather every colony should receive one-fourth to one-half quart of diluted honey daily in order that brood-rearing may go on uninterruptedly. The greater activity has also the tendency to increase the warmth inside of the hive, which is beneficial. The packing should not be removed too early. As soon as a colony covers all their combs, more room should be given. Great care should be exercised in giving combs in the center of the brood-nest. The beginner better not do so. During the applebloom frames filled with comb foundation may be given. By the middle of May many colonies will be in shape to take advantage of a honey flow, but they should not be allowed to cast swarms thus early. By removing a few combs of hatching brood, swarming may be effectually prevented. By the help of this brood all colonies can thus easily be brought to a state of full strength. Should a colony cast a swarm, the queen is removed and the swarm allowed to go back. A colony thus treated will quickly fill up their combs with honey. When the locust begins to bloom supers should be put on, or combs given. Toward the end of the honey season swarms may be accepted. But they will have to be helped from other colonies in shape of brood and combs in order that they may get in condition for winter.

Schles. Imborblatt reports that five cases of honey adulteration have lately been disposed of by the courts in Berlin. Two men were fined each 500 marks, three dealers each 50 marks.— Central Blatt.

AUSTRIA.

Some years ago a rather animated controversy was carried on in the Nordlinger Bztg. as to the advantages of the American L hive over the Dzierzon hive. Our good esteemed friend Stachelhausen on one side—German bee-keepers on the other. Since then the American system has found some friends in the German countries. A similar battle is going on in Austria at present, Dzierzon on one side, still adhering to his hive of half a century ago; Strauli, of Switzerland, Alphonsus and others on the other side. It would seem that the American hive will find more and more friends across the water. Gerstung constructed a hive which is becoming quite popular! Strauli shows one in the Bienenvater of December, which he thinks is a very practical hive. The construction is shown plainly in the accompanying cut.



GREECE.

The honey from the Mount Hymettus has always had the reputation of being the finest flavored honey in all creation. The "Rodomeli" "rose honey" has also been noted. It is produced upon an island along the coast of Greece, which is largely covered with wild rose-bushes. From their bloom the bees gather a honey which is very aromatic and well flavored. The rich Turks in Constantinople are willing purchasers of this honey and pay a high price for it.—Breiden in Leipz. Bztg.

F. Greiner.

BELGIUM.

Mr. Van Hay, one of the staff editors of the Bucher Belge, has an article mentioning something about the length of life of bees.

He says that the population of a colony is renewed three or four times during the summer, and once between October and the middle of April. Or that, at least, the field bees disappear during the winter, and when the spring comes, only those that were young when the winter come remain. A colony Italianized the 26th of September had no black bees left the 11th of April following. It must be remembered that in Europe, bees are wintered out of doors, and that while the summer in Belgium is much colder than in our middle states, the winter is comparatively mild.—Le Bucher Belge.

Mr. A. Gustin, in making a list of apicultural tools, mentions a small looking glass. Sometimes one is stung on the face, and with thelooking glass it is easy to see the sting and take it out.—Le Bucher Belge.

Mr. Burkhardt, in the course of some experiments on the proper size of hives, or rather brood nests, found in large hives and strong colonies from

40,000 to 61,000 cells occupied by brood. This last figures mean a daily egg laying of nearly three thousand eggs.—Le Bucher Belge.

In the spring of 1903, Mr. Wathelet, the editor of the Bucher Belge, found several of his colonies weak, and had to feed them. One of the strong colonies began to rob, and considerable trouble followed. Finally Mr. Wathelet put an empty story with twelve combs on the robbing colony and fed them vigorously. As soon as the combs were full, they were given to the weak colonies. While fed, the colony never attempted robbing. The bees were undoubtedly "too busy."

Among the causes of starvation during the winter, some cases of honey candied solid in the combs are mentioned. Another cause is a bad disposition of the honey in the hive. Occasionally there is a narrow strip of honey at the top of each comb, and after the bees have consumed what is within reach, they cannot pass to other combs, if the weather is too cold.—Le Bucher Belge.

Mr. Ignotus, in a contribution on spring feeding, raises the question of the water consumed in the spring. The amount needed is considerable. The experiments made by Preuss show a consumption of one-eighth to one-fifth of a gallon per day. He estimates that to bring in one gallon of water, the bees have to make at least ten thousand trips. Stimulative feeding should be made with very thin honey or syrup. Some apiarists add a little bit of salt to the feed. The reason for it is that very often the bees are seen sipping dirty water around the stables; and it is supposed that they prefer it because it contains some salty substances. Others claim that as such water contains organic substances similar to pollen, the bees take it for that reason. It may be noted in connection with the salt question, that the honey and the bodies of the bees contain only an insignificant amount of salt. As to the amount to be fed, one pound of honey for two weeks is enough when no brood is raised; but if there is anything like an amount of brood, two or three times that amount every few days may be necessary.—Le Bucher Belge.

ALGERIA.

Mr. Bourgeois gives a peculiar process to prevent swarming. The usual entrance is closed and another one is established between the body of the hive and the supers. This change also induces the bees to work in the supers. It might be well to say here that the Euopean apiarists work exclusively for extracted honey, and that the process might not be as successful when working for comb honey.—L' Apiculteur.

FRANCE.

Mr. F. S. Gassner has invented a machine to uncap the combs of honey to be extracted. Curved knives are placed on a revolving cylinder. Above the cylinder is a frame holding the comb to be uncapped. As the frame is pushed in its guides, it carries the comb above the cylinder, and the knives cut out the cappings, which drop into a receptacle below.—L' Apiculteur.

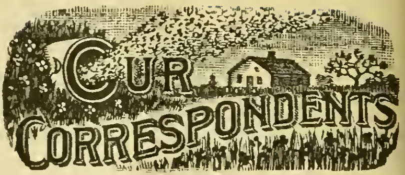
Do bees transport eggs from one cell to another? The question is yet debated. The Apiculteur gives three instances in which they did. In the spring of 1900 a colony belonging to Mr. Harrault, was found queenless. Two combs of brood were added. A few days later no queen cell was found on these combs, but two with larvae were found on one of the old combs. Why the bees transported the eggs on the old comb instead of building the cells on the combs given is a mystery. Mr. Harrault thinks it may be because the combs given were rather on the outside of the cluster and therefore in a colder place. Another instance quoted is that of a queen confined for a few days in a wire cage. Some brood was found below the cage. It seems that the eggs laid by the queen dropped through the meshes and were gathered and put in the cells by the bees. The third case is that of an apiarist finding a queen-cell occupied in a broodless and queenless colony. The cell hatched a queen, so it was not a case of laying workers. After scratching his head, or rather his memory, the aforesaid apiarist remembered that one day while working in the apiary, he pushed under the frames of that colony a small piece of broken comb containing a few eggs and some honey. This was done to save the honey and at the same time not leave it in the open to start robbing. Evidently the bees transported one of the eggs in a suitable place to raise a queen.—L' Apiculteur.

GERMANY.

We American apiarists are not the only ones pestered by the fabrications of mixtures and concoctions of glucose and other ingredients and the selling of the same for honey. In Germany, several large factories of such products are in existence and sell openly such products, calling them artificial honey or some other names. In one of these factories an unlucky cat fell in one of the cauldrons where a mixture of extra fine (?) honey was boiling. Nobody was present at the time of the "catastrophe". When the contents of the cauldron were nearly entirely taken out and bottled up, the corpse of the unfortunate cat was discovered. The employees of the establishment held an inquest over the body, and decided to call in the proprietor. That individual, after investigating the status of his finances, decided that he could not afford to lose such an amount of "extra fine honey," and ordered the bottling and selling to proceed. An injunction was issued to all employees to keep the matter a profound secret. Like all the profound secrets, the affair leaked out. The proprietor was prosecuted, apprehended and condemned to a fine of 1,000 marks ($1,250). What the inward feelings of the consumers of the brand of "extra fine honey" may have been when they read the account in the newspapers is not stated.—From Le Rucher Belge.

Adrian Getaz.

The Bee-Keeper's Review thinks it time for the National Association to publish each year a stenographic report of its meetings, together with the report of the general manager, for distribution among the membership. It is evidently the duty of the association to do so and it is difficult to imagine any valid objection to the project. Official information as to the work of the association, in all its details, should be furnished each member as promptly as expedient.



OUR CORRESPONDENTS

Yonkers, N. Y., May 10, 1904.,

Dear Mr. Hill:—

As you know, the past winter has been very "fierce" up North and my two out-door hives lost about half of their population. As for the "Bug House," its inmates thrived and increased so fast during March and April that they began building combs on the glass sides, for want of room, so I transferred the whole bunch to a regulation hive and put them out of doors, and at present they are "as busy as hatters" on fruit bloom.

Dickson D. Alley.

West Berne, N. Y., May,2 1904.

Editor Bee-Keeper:—

I have successfully wintered 104 colonies in cellar—exactly the same number I put in last fall. This is something that is very seldom done here. I have been moving bees during the last week, and while the spring has been one of the lowest grade, bees are strong and in good condition, though not breeding heavily yet. I hope during the year to be able to show by pen and camera some of my methods of keeping bees and rearing queens. I will prove that the best queens can be reared at home and the nuclei wintered and used again and again, without robbing colonies here and there to keep up nuclei. I do not pretend to know it all, but my writings will be founded upon an experience of 15 years. I like the American Bee-Keeper very much.

P. W. Stahlman.

A Seasoned Rustic. — The young daughter of a prominent New York financier, who has passed most of her years either in the city or at large summer resorts, recently paid her first visit to a real country home. She was anxious to show that she was not altogether ignorant of rural conditions, and when a dish of honey was set before her on the breakfast table she saw her opportunity. "Ah," she observed, "I see you keep a bee."—Harper's Weekly.

THE AMERICAN BEE-KEEPER

PUBLISHED MONTHLY.
THE W. T. FALCONER MANFG. Co.
PROPRIETORS.
H. E. HILL, - EDITOR,
FORT PIERCE, FLA.

Terms.

Fifty cents a year in advance; 2 copies 85 cents; 3 copies $1.20; all to be sent to one postoffice.

Postage prepaid in the United States and Canada; 10 cents extra to all countries in the postal union, and 20 cents extra to all other countries.

Advertising Rates.

Fifteen cents per line, 9 words; $2.00 per inch. Five per cent. discount for two insertions; seven per cent. for three insertions; twenty per cent. for twelve insertions.

Advertisements must be received on or before the 15th of each month to insure insertion in the month following.

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THE AMERICAN BEE-KEEPER,
Falconer, N. Y.

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H. E. Hill,
Fort Pierce, Fla.

Subscribers receiving their paper in blue wrapper will know that their subscription expires with this number. We hope that you will not delay favoring us with a renewal.

A red wrapper on your paper indicates that you owe for your subscription. Please give the matter your earliest attention.

Editorial

Complaints of honey-dew, which were formerly so frequent, are now seldom heard.

A favorite topic with apiarian writers of the eighties was, "The Coming Bee." However, nothing of great importance has "come." during the past fifteen years or so. If it has, its landing has been unobserved.

Swathmore babies are "being borned" everywhere."

There's nothing hau so "good as honey" for twice the "money" and glucose is worse than nothing at any price.

Raising bees for sale, instead of running for honey, would probably prove profitable to those suitably equipped, this season.

Mr. E. H. Dewey, of Great Barrington, Mass., has assumed charge of Dr. Culver's "Brookmede" apiary, and will engage in the rearing of queens.

Prospects for good prices and an active market for the honey crop in prospect are encouraging to those who have successfully wintered their bees.

Commenting upon Dr. Blanton's recent remarks concerning Cyprians, a correspondent says: "A premature grave await the man who persists in trying to earn a living with Cyps."

Mr. Henry Reddert, of Cincinnati, has recently invented a section press by the use of which two sections are squarely put together at one operation. The inventor says it works to perfection.

Hives for the reception of swarms should be kept in the shade. Bees dislike a hot hive; and newly-hived swarms frequently abscond as a result of this oversight upon the part of the bee-keeper.

To those unaccustomed to its use, a generous taste of pure, well-ripened honey is the best advertisement possible. The "taste' is what leads to the habitual use of any commodity or luxury. It don't pay to be stingy.

The poorest salesman in the world might be one of the most successful producers of honey. Both branches should be directed by competent hands; and it is difficult to say which of the two is the more important.

It is said that a specimen of honey from Trebizond, gathered from the rhodoendron ponticum, which is common in that vicinity, was sent in 1844 to the Zoological Society of London, and in 1859 its poisonous qualities were still retained.

The Pacific States Bee Journal cites as its authority for the statement that a Honolulu bee-keeper produced 300,000 pounds of honey in a season from 200 colonies, the last annual report of the National Bee-Keepers' Association. There are a number of things in that report which should be revised before reproduction.

Mr. E. M. Storer, who returned from Cuba, as recently noted in these columns, and purchased an apiary at Wabasso, Fla., writes that he will not get honey enough for breakfast from the saw palmetto this year. He is now making inquiry as to rates for transporting bees to Cuba. During the past poor season in Cuba, Mr. Storer took from 900 colonies ten thousand gallons of honey and eleven hundred nuclei. It appears that Cuba is still in the race.

Perhaps no other question is more often asked, in regard to apiculture, than, "Does bee-keeping pay?" A harder question would be difficult to imagine. Does store-keeping pay? Yes and no. Under the same conditions either is profitable to certain persons. Under the same conditions neither is profitable to others. Some succeed where others fail. Some fail where others would have succeeded. It's so the world over, in all branches of industry and commerce.

The Modern Farmer and Busy Bee makes the following pertinent comment, with reference to the National Association and its doings:

> Let the membership have a report of the annual meetings, advertise honey everywhere, promote the general interests of the industry, go after adulterators, get laws passed for the promotion of the industry, see that bee-keeping gets proper recognition at the hands of all fair associations, county, state and nation.

From a recent editorial in the American Bee Journal, it appears that the old Cotton hive fake is again being worked. Lizzie must have been hibernating, and but recently awakened; but her schemes to extort money from the ambitious, though unwary bee-keeper will doubtless fall short of the success with which they met "some twenty years ago." Bee fixtures with which the name "Cotton" is in any way associated have about them an unsavory odor in the nostrils of the practical apiarist. It would be well for the uninitiated to "fight shy" of Cotton goods until their history has been investigated. We have for some time had an article in hand, by Mr. E. F. Atwater, Boise, Idaho, in regard to this hive, which is well known in his locality. We hope to publish it next month.

Editor Root, of Gleanings, thinks we need have no fear as to the results of the popular advertisement, "better than honey for less money." There is no fear as to bee-keepers, or others who are familiar with the excellence of honey as a food, but it is the millions of others who know practically nothing of honey who will be duped; and their experience with the glucose in cans may bar the way to the introduction of honey, pure and wholesome.

The time to clip a laying queen is the moment you find her. The plan of keeping all queens clipped enables the operator to control swarms and to identify his queens.

If a hive contains a clipped queen, have some exterior mark which to the eye of the apiarist means, "Clipped Queen". Then, if the record shows the date upon which she was clipped a case of supersedure will be readily recognized by a sight of of the young queen.

Those who labor so vigorously to proclaim the obstacles with which the publicatian of a bee journal is fraught and consequently advise so earnestly against others embarking in the field, we have never known to observe the fact that the most beautiful, and one of the most valuable journals in the world is comparatively new in the field; nor the additional fact that the journal having by far the largest circulation on the whole list of bee journals, is by no means the oldest. The adage, "there's always room at the op" applies as well to apiarian journalism as to any other business, and here is ample room for improvement n any and all the bee papers. They re all successful in one particular, and that is the success with which they escape the seal of perfection. The American Bee-Keeper sees opportunities for the man who has the capital and ability to overshadow everything now in the field, in this line, and it would welcome his advent, heartily. We ask not that the earth and the fullness thereof shall be set apart for ourselves.

OUR QUEEN DIRECTORY.

The increasing popularity of our Queen-Breeders' Directory is attested by the increasing patronage it receives. Prospective buyers of choice queens are invited to consult this department; and breeders of responsibility everywhere are invited to tell our readers what they have to offer, through the Directory. Good advertising is the parent of profitable business.

A HONEY DEALER'S DIRECTORY.

For the information of honey producers, and as a means of effecting a more general distribution of our products, as well as enabling dealers to keep their business before the producing fraternity, The American Bee-Keeper has undertaken to establish, as a regular department in its columns, a "Honey Dealer's Directory." In inaugurating this special service we shall endeavor to include only reliable firms, and to arrange them in order, by States, to facilitate ready reference.

Two nonpareil lines will be allowed for each announcement, which must run one full year. The charge will be uniformly $1.25 for 12 months. Additional words, not to exceed 50 may be used at 12 cents each for the full year, or one cent a word per month.

This department is intended, not only for those who deal in honey, but its purpose is to serve as a publicity medium for producers who sell in quantities.

The numerous inquiries received at this office, from those having honey for sale bears evidence of the necessity for some such a department in the Bee-Keeper, and we hope to have a very complete list of dealers and producers constantly under this heading. Better advertising means better prices and a wider distribution of our product.

If you deal in honey, or if you produce honey for the market, you are invited to patronize this department and thus keep your business before the public.

THE ROCKY MOUNTAIN BEE JOURNAL SOLD.

Just as we were going to press with the May edition of the Bee-Keeper, the following letter came to hand:

Boulder, Colo., April 25, 1904

My Dear Mr. Hill:—

I have just sold the plant, subscription list, good will, etc., of the Rocky Mountain Bee Journal to P. F. Adelsbach, editor of the Pacific States Bee Journal and manager of the Central California Honey Producers' Association. The two journals will be merged and published under a new and broader name and will aim to serve the interests of the bee-keepers of the entire region of the eastern slopes of the Rockies to the Pacific coast.

My reason for letting go is that my main business (honey production) has now grown so large as to leave no time for side issues. It had become a case of "too many irons in the fire."

Fraternally Yours,
H. C. Morehouse.

Thus we have to record the demise of one of the most sprightly, practical and neat bee journals that have ever been published in the United States; and while we sincerely wish Mr. Morehouse abundant success as an apiarist we deeply regret his retirement from the editorial arena.

Brother Adelsbach is now getting out a very instructive journal, of special interest to Pacific Coast bee-keepers; and if he can maintain the pace set by Mr. Morehouse, he has before him a great field. Our sincere wishes for success are with him.

THE SULPHUR CURE FOR BEE-PARALYSIS.

In the May Bee-keeper was published an extract from the Southland Queen, wherein the editor of that journal stated that neither Mr. Poppleton nor the Bee-Keeper had given the world anything in regard to the treatment of paralysis that was not known twenty years ago. The following excerpt is from Gleanings for April 15, which came to hand just after our forms for May had closed:

"Mr. O. O. Poppleton, of Stuart, Fla., who gave to the world the first successful method of curing bee-paralysis, by means of powdered sulphur, has probably had as good an opportunity of studying this peculiar disease, which has hitherto baffled all efforts at cure, as any other man in the United States. In the March issue of the American Bee-Keeper he confirms an opinion that has been expressed many a time, that bee-paralysis is hereditary, or, rather, he goes on to state that the 'disease seems to be much more prevalent in certain strains or families of bees. At least four times in the last ten years I have had to destroy utterly certain queens and all their daughters, nearly all cases in my apiary being confined to these particular bees. Certain queens seem to transmit the germs of the disease through queen daughters to their progeny.'

"He observes, further, that 'colonies which hive the disease one season but recovered without treatment of any kind, are much more liable to have the disease next season.' And again, 'It is the old bee, the field worker, that dies.'

"It may be interesting to mention at this time that others have followed Mr. Poppleton's method of treatment with entire success, which is nothing more nor less than sprinkling the infected combs, then repeating the treatment a week or so later, and again if necessary."

The above extract is from the most widely circulated apiarian journal in the world, and one of the most ably and carefully edited. Gleanings evidently appreciates the fact that the subject under discussion is one of vital importance to bee-keepers, and therefore, in consideration of fraternal interests, gracefully acknowledges the value of Mr. Poppleton's letters, as published in the American Bee-Keeper. In this respect Gleanings differs radically from the Southland Queen, which appears to think well of everyone, excepting those who fail to imbibe all the fine-spun theories which take rise in, and overflow from Beeville, Texas.

The point which we are accused of working unfairly to make, is simply the fact that bee-paralysis may be cured by one or two applications of sulphur over the bees and combs infected. This fact we have demonstrated upon several occasions during the past seven or eight years. Mr. Atchley's theory is virtually that bee-paralysis is simply a case of sour stomach or heartburn. If such were the case, any outward application would hardly affect it—a dose of soda would doubtless be necessary.

HENRY ALLEY TAKES A BRIDE.

Someone has sent us the following newspaper clipping relating to a recent romance in which figured the venerable queen-breeder of Massachusetts, whom all will wish much happiness:

Wenham, Mass., May 14.—The Beeman of Wenham sat in an old rustic chair in the garden of his pleasant little farm house on the shady side of Larch rd., surrounded by budding lilac and syringa bushes. The air was sweet with the fragrance of cheery blossoms overhead, and the bees hummed busily to and fro from the cherry tree to some near-by maples.

A short distance away the Beeman's wife, and bride of seven days, was putting out some pansy plants. She was a pleasant, healthy looking woman, past middle age, and her hair was slightly gray.

As he noted all these things the Beeman smiled, his eyes twinkled and his face lighted up. The Beeman's hair was gray also. He was 69 years old, though still strong and active as a man of 50. Constant outdoor work had kept him young and looking after his bees from whom he had learned many lessons, was so pleasant a task that his mind, also, had remained fresh and kindly. He was of broad minded, philosophic disposition and besides Beeman had formerly been chief of police of the town for many years and was still one of its leading citizens.

The Beeman's real name was Henry Alley, he had lived in the snug farm-house on Larch rd., for 55 years and had kept bees 40 years. And thereby hangs a pretty New England romance, for it was the bees who had brought to him the comely bride, seen setting out pansies in the garden.

As Beeman of Wenham, Mr. Alley had become known all over the United States and in Canada, too. He raised bees not to sell their honey, but for the queens or breeding bees, the source of every hive. He had studied the habits of bees for so long and knew so much about them that he at last succeeded in raising a specimen of queen that would breed working bees which would produce more honey than any other kind known to bee raisers. He also wrote four books on bee culture which were widely read by those interested in the subject. Through his books and his bees the Beeman became famous and his "Golden Adel" queens began to be sent far and wide.

Among the persons who sent in an order for one of his queens was a Mrs. Margaret Ball of Vernon Center, N.Y., another fair country town such as Wenham. Mrs. Ball was a widow and raised bees because she liked them and liked to keep busy at out-door work. Her family is prominent in Vernon, and her son, the Rev. J. C. Ball, has recently been appointed president of Kenka College.

It was three years ago that the Beeman sent the queen to Vernon Centre. In November, 1902, he received this letter:

"I owe you a debt of gratitude because were it not for the progeny of the Golden Adel queen I would not have an ounce of surplus honey. As it was I have 125 pounds while my neighbors have none.

"Mrs. Margaret Ball."

As a matter of fact it was a selfish desire that developed the romance. Honey, 125 pounds. Phew! The Beeman wanted that bee back. He wrote and told Mrs. Ball so, but she was loth to sell the queen. This entailed more letters, and through them the persons became better acquainted and their correspondence more friendly.

The Beeman was a widower, and his eldest daughter, Addie, a woman of about 30, kept house for him. But bees, after all, are not sufficient company for a man.

The bees told him many things about his correspondent. For one thing, he thought, they tell me that Mrs. Ball has a good disposition, for she likes bees and bees like her, and they never take to anyone that isn't pleasant and good. Then again, she's industrious or she wouldn't be keeping them, and I know she must have learned profitable lessons from the patient, busy creatures.

I like bees.

Bees like Margaret Ball.

Then, why shouldn't I like Margaret Ball?

His thoughts were constantly running in this form.

And so the letters on bee culture developed into letters of love, for the romance, not as novelists would have one believe, end when the young earl with Arabella, pressed to his waistcoat, dashes off in his royal carriage, and some hearts remain sweet and romantic even after gray hairs and wrinkles have come.

When on May 4 the Beeman started for New York State, the people of Wenham wondered, for it was one of the few times in many years that he had gone on a distant visit.

On May 5 there was a splendid wedding at the Ball house in Vernon Centre, N. Y. The Rev. J. C. Ball, son of the bride, Presbyterian minister and president of Kenka college came up from Newark, N. J., to officiate. The Beeman of Wenham was in his happiest mood, and the pleasant face of Beewoman of Wenham, late of Vernon centre, actually shone.

On May 6 the pair arrived at the Wenham home, and it was today that they were found by a Record reporter seated in the garden as described, the picture of simple happiness.

"I wanted to get that bee back," said the Beeman, smiling as the insects hummed about him and lighted on his shoulders, "and instead I got my wife."

ADVERTISING HONEY.

Successful advertising is a modern science, and the chief exponent of this science is Printers' Ink, a weekly magazine published in New York. In every issue Printers' Ink publishes a number of "ads" clipped from various periodicals throughout the world. It then proceeds to indicate the merits and weak points of each example. In a recent issue the following appeared as an example of good work. "Good" because it told the prospective buyer something of interest and something to attract in regard to the goods which he was invited to try. The suggestion is for a retailer's playcard, of course. Different wording would be required for a newspaper ad. However, it appears to be "up to" the bee-keepers of the country to extend sales through the medium of the public press, as is done with all other commodities:

> We don't believe the bees can produce a more luscious, a more perfect table delicacy than this
>
> **Strained Honey**
>
> we've just received. It's the kind that took first premium at the World's Fair, it is far-famed for its goodness.
>
> **15 Cents a Lb.**
>
> is cheap for it—but it's all we ask.

CUTTING A BEE TREE.

From Forest and Stream.

I FEEL considerably stuck up. That phrase is not to be taken as slang, and I am sure I have seen too much of the world to feel as though I was anybody in particular. I have merely been "cuttin' a bee tree" and getting some of the wild honey and some of the things that go with it.

I have noted from time to time what Forest and Stream contributors have been giving us about bee hunting—the last article I remember being signed by Hermit. I would like to have his full name, also his photograph, so when I meet him I will be sure that I have got him. I am a hermit myself, but I never monkeyed with a bee tree until today, and I followed some of Hermit's directions.

Hermit writes a very graphic and pleasing epistle. No doubt he told all he knew about bees, and something more—but there is a quantity of wisdom and knowledge that is evasive. I am quite positive just at present that Hermit let some of it get away. He may know something about some bees but if he will call around in this vicinity and chop down a bees' nest he will get some points.

You see it was this way. I've been hankering after honey. I wanted to get some myself, and besides I wanted a few bees to help fix up ranch with. Forest and Stream talked about bees and honey, and when they commenced coming to my garden this spring I commenced to pike around after 'em. I fixed up some bait and got 'em to coming to it all right and then I watched them.

I got several courses. In fact, as near as I could tell, everyone of them had a course of his own. Once in a while one of them would go up the creek, so I went up the creek. After chasing them for two or three days I had coursed them about 300 yards. Then they began to go wild. Most of them would fill up on my bait, make two or three false motions, then zigzag around a few times, shoot up toward the sky and neither I nor my dog could tell where in thunder they made for. Finally I left my bait out and there came a big rain and destroyed it, then I quit for awhile. I was not completely discouraged, but I thought I was losing my interest in bees.

One day a man came by my shack. I don't see a man very often in this vicinity, so I had to talk with him. After a chat he said:

"Wal, how is it ye never cut that bee tree up thar?"

"Well," I replied diplomatically, "it's most too far, and in a kind of a bad place to get at."

"Fur," said he; "why it ain't more'n a quarter, and right alongside of the creek and the road. Couldn't be in a better place."

"Oh, you mean that dead white oak near the crossing?"

"Naw, I mean the big black oak, with the top broke off, near where some feller has been makin' cedar posts."

"Oh," I said in a sneaking kind of a tone, "I calculated to cut that tree, but I thought I had better wait and give the bees a chance to get some honey." I added conscientiously, to myself, "besides, I'll be blasted if I knew that tree had bees in it."

"Wal," said the man, "I'd cut it

now and save the bees; they'd have time to fix up for winter. They're workin' strong now."

Then my visitor commenced telling bee yarns. As soon as he left I went up to see that tree. Sure enough, they were there, "bb"ilin' out it by handfuls," about thirty feet from the ground. The tree was just out of my road up the creek, and I had passed it about 1,100 times. Then this man, passing it for the first time, had seen the bees at once. Such is life.

It was a large tree, about two feet in diameter,and I thought it was sound at the base. It looked like a big contract for me to cut it down alone and I waited two or three weeks for some one to come along who would like to take a hand. Finally a party of surveyors came along. I asked them if they would like some honey. Oh, yes, they would. I told them about how by cutting the tree we could get some. Well, they rather guessed they didn't have time—besides they didn't understand cutting bee trees nohow.

I then worked three days and made two first-class bee gums, with two compartments and numbers of frames, air-holes, etc. I still look with pride on what I consider a neat job.

When I had finished the gums I couldn't wait any longer. I wanted honey bad—having been entirely out of it for several years—and besides I wanted to see those bees in my new hives, working for me on the ranch.

I got all the things together that I expected to need, took my axe and a bee gum and went up to see the bees. I reached their front yard about 4 o'clock in the afternoon. I could see from the ground that they were still open to business. It was one of the warmest days we have had this year, and I think bees are lively on warm days.

I figured on the tree and thought I could chop it down in an hour and a half, and I wanted to monkey with the bees about sundown. I thought it would be pleasant in the coll of the evening. The tree was in the shade of some tall pines, and I went to work. I chopped a good sized chip and listened. I didn't hear anything buzz or whizz, so I kept on. The bees acted civilly—they were so high up in the world they simply ignored people on the ground. But they didn't know I was going to take 'em down a little. The tree was hollow to the ground and when I had blocked out one side I saw I had time enough.

I rested awhile. I sort of liked to rest while chopping, which is a good deal like labor. I never labor without resting whenever I have a good, square chance. But the mosquitoes were so bad I thought I might as well chop, and before I expected it, I cut through into the hollow so far that the tree began to crack, then it squeaked tottered and fell with a crash—an hour ahead of time. There was a granite boulder thirty feet from the tree. The bees seemed to be doing business in the honey line about thirty feet up. I calculated to drop them on the boulder, which would open up their works in all probability without further use of the axe. The tree fell on the boulder and burst like a pumpkin. The entire domicile of the bees was opened up to the public, which was, at this place, two dogs and myself. I sneaked up a few feet to see how things looked before I put on my prepared armor, which I had near by.

I didn't get a very good view, I came away too soon. The air all at once seemed to be one solid whiz, and was so full of bees that my dogs gathered a lot of them without trying, and went off as though they wanted to get away from there. One of the dogs was a small, short-haired dog, and very black. When he left I could see he was full of little yellow spots that looked like spangles. They were bees and they clung to him as though they had never seen a dog before. The dog acted as though he never had bees behind before.

I secured my armor and prepared for action. I had only a small piece of mosquito bar which I fastened to my straw hat, letting it festoon my face. I drew on a hickory overshirt (wearing it like a bushwhacker, outside my pants), then I tied a string around my ankles, one around my waist and a handkerchief around my neck; finally I drew over my hands a pair of cotton socks for gauntlets, and I was ready.

I approached the bees gradually. I got in among them and they couldn't do a thing to me. But didn't they try it though! I never was the center of so much attraction in my life, and I had no notion till then how much racket a few million bees can make. I peered into their works in the tree, now spread wide open. I never saw such a combination of honeycomb and mad bees.

I then got my hive, buckets and pans, and went to work. Just about this time the sun came out from behind a tree and shone as though it had concentrated all its rays to focus on my operations. The bees got madder and crazier. One of the dogs had come back as near as he dared, and as luck would have it he flushed a skunk so close by that the animal pervaded all the atmosphere that was not full of bees. I got entangled in grapevines and thought I could hear a rattlesnake, but the bees made such a whiz I could only guess at it. I grabbed all the honeycomb I could see through my veil, put it in the buckets and had everything full and more left. My gauntlets became loose and a few bees got into them, my veil leaked and let in a few, then a small contingent got into my hair!

Now did those bees behave like those Hermit tells about? Had the "little wariors of a moment ago" found they were to be robbed, and quit in despair to fill up on honey? Not a bit of it.

My hat felt as if full of red-hot barbed wire, and my hands as though they well full of red-hot fish hooks. If anyone had come along then he could have seen it was my busy day, and he would have gone right away about his business somewhere else.

As soon as I could get out of the grapevines, rocks and brush, I made for the creek and away from where I seemtd to be as fast as I imagined a man with only two legs to work with could progress.

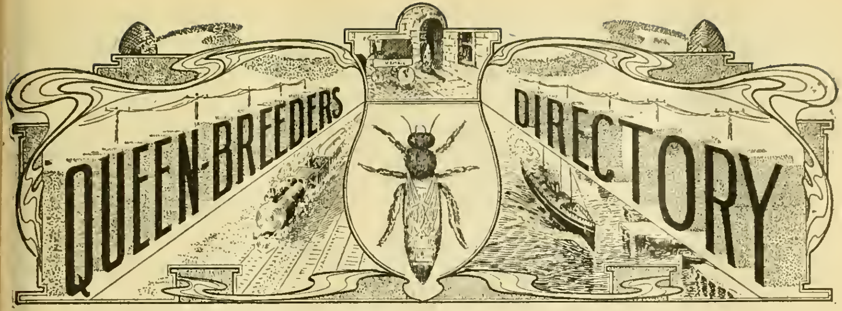
Talk about things with strings on! All the things I had tied on to keep the bees out were now keeping them in! Some of the bees I took with me wanted to get out, but they couldn't, so they stayed with me—stuck right to me. When I did get out of my extra duds, every bee was simply stupified with victory and satiated with revenge. I sat down to recover my senses and incidentally to pick the stingers out of myself that the bees seemed to have had no further use for. My dog seemed to have thought I was insane, and he even risked the bees to get around somewhere where I could fall over him in my mad career. Now he condoled with me, and I asked him if he had ever made one of such a pair of fools before in his life. He looked skeptical and was non-committal, but between his experience with the bees and his traffic with the skunk he seemed to feel humiliation too.

I left for home with half a barrel of honey-comb, two or three pounds of honey, a swelled head, a smarting anatomy, lots of experience and a fond hope to get a chance at Hermit and the bee editor of Forest and Stream some day.

The foregoing account is merely the record of the first day's operations with bee tree No. 1. I never quit an enterprise that I undertake so long as I think the rest is easy, and that I have had the worst of it. I went back to those bees. I spent the next two days with them, and dreamed of them the intervening nights. There are about eight gallons of them, and at this writing I have them on my premises. I brought them down in two loads, corked up in a keg and a box. Whether I have one, two or three swarms I don't know yet. I poured them out and drove them into my new gums with a switch. I divided them as near as I could.

Today they all seemed to be having a time of it themselves to get straightened out and reorganized. They get out on the piazza to their new homes and march from one hive to the other. They stand on their heads, kick at the sky and buzz and counter-march. I don't know what their plans are, but I do know they haven't quit fighting back. They have not missed a reasonable chance to sting me. It is said that when they sting they die; if this is true and they keep at me, they will all commit suicide. There are only a few million of 'em left. Before I cut my next bee tree I will wait until I can wear an ordinary shaped hat. Meantime I will think up some on the subject. Ransacker.

P. S.—I suppose there are apiarians who think they know all abopt bees and have written books. To the novice I offer my advice free, viz.; don't try to read up on bees. You would never get it all. Either cut a bee tree and hive a swarm or two, or be content with patent honey made out of sorghum and nitro-glycerine. R.



ONE-HALF INCH SPACE ONE YEAR ON THIS PAGE, $3.00.

THE A. I. ROOT CO., MEDINA, OHIO. Breeders of Italian bees and queens.

QUEENS from Jamaica any day in the year Untested, 66c.; tested, $1.00; select tested, $1.50. Our queens are reared from the very finest strains. Geo. W. Phillips, Sav-La-Mar P O., Jamaica, W. I. (5-5)

C. H. W. WEBER, CINCINNATI, OHIO (Cor. Central and Freeman Aves.) Golden yellow, Red Clover and Carniolan queens, bred from select mothers in separate apiaries.

W. Z. HUTCHINSON, FLINT, MICH. Superior stock queens, $1.50 each; queen and Bee-Keepers' Review one year for only $2.00.

QUEEN BEES are now ready to mail. Golden Italians, Red Clover three-banded queens and Carniolans. We guarantee safe arrival. The Fred W. Muth Co., 51 Walnut St., Cincinnati, Ohio. (5-5)

JOHN M. DAVIS, SPRING HILL, TENN., sends out the choicest 3-banded and golden Italian queens that skill and experience can produce. Satisfaction guaranteed. No disease.

QUIRIN, the Queen Breeder, has an exceptionally hardy strain of Italian bees; they wintered on their summer stands within a few miles of bleak Lake Erie. Send for Free Circular. Bellevue, Ohio. (5-5)

NEW CENTURY QUEEN-REARING CO., (John W. Pharr, Prop.) BERCLAIR, TEXAS, is breeding fine golden and 3-banded Italian and Carniolan queens. Prices are low. Please write for special information desired.

SWARTHMORE APIARIES, SWARTHMORE, PA. Our bees and queens are the brightest Italians procurable. Satisfaction guaranteed. Correspondence in English, French, German and Spanish. Shipments to all parts of the world.

SLONE BEE CO., SLONE, LOUISIANA. Fine Golden Queens. Leather-Colored Italians and Holy Lands. Prices low.

J. B. CASE, PORT ORANGE, FLA., has fine golden Italian queens early and late. Workers little inclined to swarm, and cap their honey very white. Hundreds of his old customers stick to him year after year. Circular free.

GEO. VANDE VORD, DAYTONA, FLA. Breeds choice Italian queens early. All queens warranted purely mated, and satisfaction guaranteed.

MOORE'S LONG-TONGUED STRAIN of Italians become more and more popular each year. Those who have tested them know why. Descriptive circular free to all. Write J. P. Moore, L. Box 1, Morgan, Ky. 4

THE HONEY AND BEE COMPANY, BEEVILLE, TEXAS. Holy Land, Carniolan, Cyprian, Albino and 3 and 5-banded Italian queens. Write for our low prices. Satisfaction guaranteed.

PUNIC BEES. All other races are discarded after trial of these wonderful bees. Particulars post free. John Hewitt & Co., Sheffield, England. 4

HONEY DEALERS' DIRECTORY

☞Under this heading will be inserted, for reliable dealers, two lines one year for $1.25. Additional words, 12c a word. No announcement can be accepted for less than one year at these rates.☜

OHIO.

C. H. W. WEBER, Freeman and Central Aves., Cincinnati, Ohio. If for sale, mail sample, and state price expected delivered in Cincinnati. If in want, write for prices, and state quality and quantity wanted. (5-5)

We are always in the market for extracted honey, as we sell unlimited quantities. Send us a sample and your best price delivered here. THE FRED W. MUTH CO., 51 Walnut St., Cincinnati, Ohio. (5-5)

COLORADO.

THE COLORADO HONEY PRODUCERS ASS'N, 1440 Market St., Denver, Colo.

ILLINOIS.

R. A. BURNETT & CO., 199 South Wate Street, Chicago. (5-5)

HONEY AND BEESWAX MARKET.

Denver, May 17.—The supply of comb honey is exhausted, and the demands very light now, though we could handle some small consignments of No. 1 white comb to good advantage at present. We quote our market today as follows: Extracted, 7¼ to 7 3-4. Beeswax, 26 to 30c.

Colorado Honey Producers' Assn.

Kansas City May 18.—The demand exceeds the supply, and from the way honey is now moving the old stock will be all cleaned up by the time the new crop arrives. We quote today: Fancy white comb, $2.75; No. 1, $2.50. Extracted is dull at 5 to 6c. Beeswax, 30c. C. C. Clemmons & Co.

Toronto, May 18.—Ontario has lost 30 per cent. of her bees, and there is some talk of higher prices next season for honey. The supply is still abundant, with fair demand. We quote our market today as follows: Comb, $1.50 to $1.75 per dozen. Extracted, 6 to 8c., according to quality. Beeswax 30 to 32c.

E. Grainger & Co.

New York, May 17.—Comb honey very quiet and dark grades or anything but fancy is in no demand. The supply of honey is large. We quote our market today as follows: Fancy comb, 13c.; No. 1, 12c.; amber, 10c. Extracted, white, 6½c., amber, 5 to 5½c. Beeswax, 30c.

Hildreth & Segelken.

Buffalo, May 16.—Fruit hurts the sale of all grades of honey and we cannot encourage shipments here unless shippers want their honey sold low. The supply is moderate and the demand very light. We quote as follows today: Comb, 7 to 12c., as to quality. Extracted, 5 to 8c. Beeswax, 28 to 32c.

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Denver, April 19.—The supply of strictly No. 1 honey is small, with fair demand. We quote today as follows: No. 1 comb, in cases of 24 sections, $2.50 to $2.75 per case. No. 2, $2.25 to $2.40. Extracted, 6 3-4 to 7¼ for No. 1 stock. Beeswax is always in demand, and we quote today, 26 to 30c.

Colorado Honey Producers' Assn.

Boston, May 14.—The demand for honey i extremely light—almost nothing—and supplie are heavy for this time of year; our price are therefore largely nominal. We quote fancy white, 15 to 16c.; A No. 1, 14 to 15c. an No. 1, 14c., with no call for under grades Extracted, 6 to 7c.

Blake, Scott & Lee.

Toronto, April 27.—The supply of honey i still abundant and the market not very brisk The demand at retail is fair. We quote ou market today as follows: No. 1 comb, pe case, $1.75; No. 2, $1.50; culls, $1.25. Extracted 6½ to 7½c. Beeswax, 30 to 32c.

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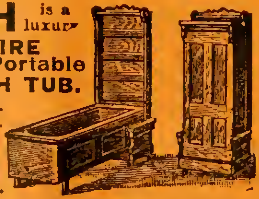

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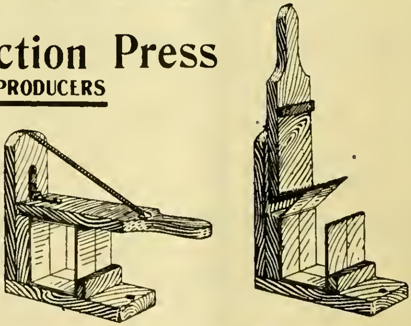

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AMERICAN BEE-KEEPER, Jamestown, N.Y.

THE AMERICAN BEE-KEEPER

Vol. XIV JULY, 1904. No. 7

ORANGE BLOSSOMS.

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THE ORANGE BLOSSOM.

By W. S. Hart.

EDITOR of The American Bee-Keeper.

My Dear Sir:—The photograph of a spray of orange blossoms received from you by the last mail is the finest that I have yet seen. I think it should go into the American Bee-Keeper, and thus give many, who know not even the form thereof, an opportunity to see what a really beautiful flower it is.

It is a matter of regret that photographic art cannot also catch the delicious perfume, and fix it in the picture for the delight of those who live too far away from the orange growing States to allow of their enjoying, to the full measure, this most charming product of the Sunny South.

This picture will be of special interest to bee-keepers, for, as a prolific pollen, and less prolific honey producer, the orange blossom is a very important factor in building up our colonies in late February, March and early in April (the period of bloom varying somewhat in different years) and starting them into the season with an abundance of young bees.

To him who is both a bee-keeper and an orange grower, there are few if any, more pleasant experiences than that of standing in the midst of the glossy green, rich gold, and silvery white, of his fruit and flower laden trees, in early March, the air redolent with the delicious perfume of the blossoms, and full of music from the busy hum of his bees. Then is the time to pluck and eat of "The fruit of the Gods," while at its very best, and thus arrive at the ideal condition of man when every one of the five senses are rationally gratified to an extent seldom reached even in life's happiest experiences

As a honey producer, the orange blossom is often over-estimated as to quantity, but never as to quality. Of the latter too much can hardly be said; for I am sure that pure orange blossom honey has no superior in any one of the three qualities, color, body or flavor; the essentials that go to the making of a perfect product. It is, in fact, one of Nature's most nearly perfect productions; and, like most such, quite limited in quantity. While working among the orange trees the bees seem brisk and happy, and return to their hives well laden with pollen pellets, but their honey sacs, though invariably containing some nectar, are never filled to repletion as when gathering from the saw-palmetto or mangrove bloom.

Owing to many tons of honey being shipped from this State each year under the mark of "Orange Blossom Honey," an erroneous impression has gone forth as to the quantity produced, and its true characteristics. As this honey all comes from locations to the north and outside of the orange growing districts of the State, it is not possible that it could have come from the orange blossom. The explanation offered for the use of the name is that it "is used as a private brand," and not intended to designate the source from which the nectar was gathered. In evidence that it is misleading, I will state that I have repeatedly received orders for "honey from the orange blossom" with the statement that the sender had used one or more barrels of that kind and liked it. I think I am safe in the assertion that a barrel of pure orange blossom honey was never shipped from this State. It is only very few locations, where there are large orange groves in full bearing, in the pine woods, as at DeLand or Lake Helen, that pure orange honey is ever secured; and even there in only limited quantities. I would think it quite possible that, at Riverside, California, it might be gathered in an unmixed condition, and appreciable quantity, and, possibly at other points in that great State.

When pure, its color is as white as the whitest of clover honey; its body even heavier, and its flavor superior to any other I have ever tasted. In my own section of the "Orange Belt" of Florida, it is invariably mixed with dark honey from other flowers blooming at the same time, and its fine, distinctive qualities are thereby hidden, to a greater or less extent.

Hawks Park, Fla., May 1, 1904.

ORANGE BLOSSOMS AGAIN.

By C. S. Harris.

EDITOR HILL: To your question "What do you know about orange blossoms from the standpoint of a honey producer?" I could most truthfully use Dr. Miller's favorite reply, "I don't know;" and yet, from past experience I am inclined to believe that orange bloom is an almost sure yielder of nectar under favorable conditions, and certainly I know of no bloom which the bees seek more eagerly.

Previous to the freezes of 1894-5 we were able to extract freely during orange bloom. Those freezes destroyed the orange trees and not until this year has there been any bloom of consequence and the increased amount stored by the bees I feel satisfied came from orange blossoms.

I have several times seen it stated that orange honey was very light in color, while that which we formerly harvested was amber. It was, perhaps, mixed with honey from other sources, although season and locality might be responsible for some variation in color. It was, if I remember correctly, of good body and fine flavor.

Mr. Horn's Drone Cell Counts for Naught.

On page 91, May number of The Bee-Keeper, Mr. Henry E. Horn, under the head," One on Deckel," calls attention to a single cell raised and capped as if containing a drone. on a comb of worker brood which had been given to a queenless colony. He says, "There was a drone in that cell without the least doubt." If he did not open that cell and find a drone, there is a doubt, for it sometimes occurs that a cell lacks the necessary depth. through a heavy deposit of wax at the bottom or because some foreign substance, accidentally in the cell, was waxed over instead of being removed. and in such cases, if the queen uses the cell, it must necessarily be lengthened to make room for its occupant and consequently has much the appearance of a drone cell.

Also, it is not uncommon to find a single drone cell, or perhaps two or three of them on the face of an otherwise solid comb of worker brood, under some conditions, in a queen-right colony, and Mr. Horn might very readily have overlooked this when giving a comb of unsealed brood, in fact, it could not be distinguished if it was a case of a drone egg having been deposited in a worker cell.

In either case there is no proof of the Dickel theory. But I may be "running wild," after all, and Mr. Horn have written only in a sarcastic vein.

Holly Hill, Fla., May, 18, 1904.

ORANGE BLOSSOM HONEY.

By Henry E. Horn.

FROM the bee-keepers' point of view, the orange bloom of the season just past promised much, but, not unlike some other features of this passing show, failed to live up to it. And yet it was not the bloom really that was at fault, either; for there was more of it than ever before and it lasted longer; but it was scattering, and the weather was mostly cold and windy. Twice the San Bernardino mountain range was whitened with snow and hail. And for variety's sake there was sandwiched in between it all a three-day norther, during which a southern sun pulled the thermometer up to 90 and 100 degrees in the shade. Of a consequence our poor little bees didn't gain much headway, though they tried hard enough.

In producing bloom the orange tree is simply immense. There are thousands and thousands of blossoms on every tree that never come to anything at all; there are other thousands that open, set a tiny orange and then drop off. There are, finally, a few, comparatively speaking, that open, set a fruit and eventually grow into the golden apple of the market. Now, if one examines orange flowers for nectar, he will find some rich with it, some showing a trace, and some none at all; though just how closely these two sets of facts are related to one another is probably exactly known by nobody, but it is certain that the totally dry flowers are barren in their very nature and drop off fruitless. There is a text for a practical sermon hidden in this.

The orange flower itself is a white, six-pointed star of great purity, and is very fragrant. The somewhat fleshy petals, after opening curl out and backwards , thus disclosing a round wall of straight, more or less grown together, pollen carriers, within which there is hidden the fruit germ, surmounted by the central stamen. It is in this inner temple wherein occurs the offering of the sacrifice of the nectar and of the sweet odor. A certain wise one once said that the orange flower, its form and structure, purity of coloring, abundance of sweetness, sensuous odor, was "a living symbol of the world's central mystery; and whosoever has once gained a glance behind the outer things will not say him nay,—only, since the passing of the day in the long-ago when the sanctuary became profaned, its sweet sacrifice is now mostly intermixed by a subtile poison that lames and ills."

Like all flora, here or elsewhere, the orange is richer in nectar some years than in others. There have been seasons when the nectar secretions for very abundance ran out of the blossoms, causing the foliage of the trees to become sticky with it all over. But whether rich or poor, because of the immense mass of it, there has always been far more of it than all the available bees could take care of.

And how they work at it. Not, indeed, that there is a great display of energy, or speed, in the coming or going of them; for they seem at times almost drunk with nectar, they always manifest the drowsy hum and movement of a rich flow. No vicious diving at their master, no unprovoked stinging. All they seem to ask is, "Please, keep away from our door," and you can do anything you want. And then they drop out of the air, half by direction, half by gravity, a small constant stream, on the alighting board, on the hive cover, on grass stalks, on the ground—anywhere, but as near as may be their beloved home, but for very fatigue they must have a rest and more breath before they can go another inch. At the same time another stream runs out of the entrance and, diving low, disappears in the air, making a bee line for the next orange trees.

Yes, certainly; but a bee line such as few people ever imagine. Past High Grand Master of Geometric Architecture apis mellifera turns living posey the moment its shining wings vibrate in the outer air. Go out and watch them at sunrise and you will see. Those thousands, gracefully circling up there, tinged with the gold of the horizontal beams of the morning sun are not shooting stars as one might think. They are workers going to work, as children go berry gathering in the woods and to picnic, free and unfettered.

After this sort of thing has been going on for a day or two, the combs along the top-bars begin to whiten, manipulated by two rows of bee-heads crowded together like peas in a pod from end to end of the hive, the cells grow longer and pretty soon are sealed over and bottled up, full of what is probably the most delicious honey known.

The full volume of the orange flow lasts at least two weeks. It starts ten days or two weeks before that, and straggles along for about an equa length of time after. There is no uncertainty about its yearly coming, nor doubt about its abundance. And if we had the meteorological condition necessary, we could harvest from 50 to 100 pounds of honey per colony every year without fail.

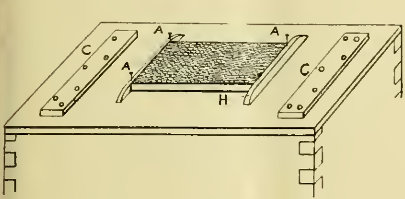
In point of time the Navel opens its blossoms first, the Valencia's and seedling afterwards and the sweets last, though the more or less of the elevation of the orchard makes a difference, too; those situated highes towards the foot hills seem to be favored with a warmer strata of air than those lower down. To sum up the matter: As a producer of nectar, both of quantity and quality, the orange tree stands in the first rank. Nevertheless, there is no dependence to be placed upon it by the bee-keeper—a least not in Southern California—for these two reasons; the weather is almost always unsuitable, and it comes too early in the season, before a strong force of young field workers is reared.

Riverside, Cal., May 27, 1904.

PROTECTING AND CLEANING COMPRESSED CUPS.

By "Swarthmore."

IT has been the practice in the Swarthmore apairies to use one colony for nothing else but to clean out the jelly, trim and protcet the hatched-out cells ready for regrafting. Cells protected in this manner are certain of acceptance almost every time they are grafted. Returning the hatched-out cells to the zinc-covered cages will accomplish the same end but when rearing queens in quantities it is more convenient to have a special cleaning colony at hand, for there are always more or less left over cells in need of patching.



Cell Cleaning and Incubating Board.

CC are cleats, to prevent warping of the thin board. These cleats are cut a little short to admit of tiering an empty shallow super, with bearings upon both sides and end of the thin board. H is a frame constructed of ⅜ strips one inch wide for supporting the cell-bars, twelve in number, placed side by side and bound together with pins—A A A A. To prevent comb building, cover the ends on the under side of the hollow square with zinc.

A thin all wood honey board is cut away in the center so as to form an oblong opening eight inches wide and 12 inches long, over which a close frame is constructed for the purpose of receiving cell-bars on exactly the same principle as in the starting screen previously explained; with the exception of their position on the hive, which is across instead of parallel with the brood-frames, the arrangement is identical.

When bars containing cleaned out cells are removed for re-grafting, their spaces are filled with blank bars, or other cell-holding bars containing newy pressed cups may be dropped into he spaces as needs seem to demand.

Always cover the cell-holding bars with absorbent quilts and never use anything but a perfectly weather-proof roof—all bee hives should have tight roofs. Paint on hive bodies is not so important excepting, perhaps, for appearance; but see to it that the roofs are kept well covered with good, durable, water-proof material of one kind or another for there is nothing more ruinous to bees than a leaky roof.

During times of extra pressure upon the cell completing colonies, large numbers of capped cells may be placed in the cell-clearing and incubating board for protection. When this board is used for incubating cells queen excluding zinc should cover the lower side of the square space beneath the bars to prevent the queen of the hive from entering this cell compartment to work wholesale destruction there.

Fix the incubating board permanently upon a hive containing a powerful colony and then bring from the nurseries any and all mature cells in need of protection the few days prior to the time of their distribution among nuclei.

In this way as high as 100 cells may be taken care of at one time. The nursery cages will then be free to receive other lots of started cells which may be awaiting their turn for transfer from the cell-starting colonies to those assigned to cell-completion.

Swarthmore, Pa., Oct. 8, 1903

THE "COTTON" HIVE "OUT WEST."

By E. F. Atwater

PROBABLY this is one of the few locations where the "Cotton Controllable Bee Hive" has been somewhat generally introduced and used. Many years ago the late Mr. Morse, a pioneer of Boise, together with Mr. McClellan, sent to E. Kretchmer for several colonies of Italian bees, the first to live and prosper here.

They arrived in fair condition, in "American" hives. Mr. Morse adopted the Lizzie Cotton hive for his increase, and at one time possessed an apiary of 150 colonies in such hives. He manufactured the hives and sold them at $7.00 each.

All over the Boise Valley one finds the hives, known here as the "Morse

Hive" still in use and containing as a rule, enormous colonies of bees. The lower story contains 14 frames, 12 3-4 inches square inside, so that the outside frames may be removed and wide frames, each holding nine square sections, put in their places. There were grooves in the sides of the hive, so that the outside frames could be removed and thin boards slipped in the grooves; the space back of the boards being filled with some non-conductor. However, no one practices this now, as the bees always winter well without contraction. When the full 14 frames are used in the broodnest, the capacity is equal to 17 1-2 L. frames. The supers are arranged to hold 14 frames 8 1-2 x 12 3-4 inches inside, so that wide frames holding six square sections might be used instead of the extracting frames.

One apiary which I am handling on shares has several of these Lizzie Cotton hives. Early in April they were of unusual strength, though the supers of extracting frames had been left on the hives all winter, and before the opening of the main flow, in June, some of them had filled a large part of the lower story with brood and had begun breeding in the upper stories, both stories full to overflowing with bees, a total capacity of about 30 L frames. This extraordinary strength was due, I believe, to, 1, location (very sheltered), 2, large hives and abundant stories, 3 some honey and pollen coming in at all times.

Boise, Idaho, Nov. 7, 1903.

THE WAR HORSE.

By Otto Gubler.

Member of the Societe Romande d' Apiculture, Switzerland.

(Translated by Frank Benton from Bulletin de la Societe Romande d'Apiculture, Vol. I, No. 1, January, 1904.)

ONCE upon a time there was—

A beautiful princess?

No.

A charming prince?

Nor that either.

Once upon a time there were two bee-keepers. Both of them wanted to do well—to do something startling. Hardened from their childhood, "neither feared anything, whatever it might be."

To handle and control Carniolans, natives, or Italians was no longer more than child's play for them—in the year of our Lord, one thousand, eight hundred and ninety-five. Just as in the fable, Bernard said to Raton: "Brother, let us do a masterstroke; let us buy Syrians. You take, or rather, you buy Syrians, and I'll buy Cyprians. Agreed."

The year opened up well and one might afford to pay out a little something extra. The Revue was thumbed over, the addresses found, the colonies ordered, shipped, received, and—paid for. Ah! how beautiful were our Syrians and our Cyprians! How dull our Italians appeared to us by the side of them! And who says that they are aggressive? Thats all nonsense. Lambs, I tell you, veritable lambs! In fact, enthusiasm is at its height. The plan was already before us for extensive breeding of our two favorite races, with an amelioration of the whole apiary through an infusion of new and vigorous blood.

The two new-comers develop marvelously; the second super takes the place of the first, and the third that of the second. Lacking the time to extract, each contemplates with pride his colony, his war-horse, with its three full supers. Ah! if I had only Syrians. Ah! if I had only Cyprians What a harvest we would get!

The hay harvest being at an end we open our hives. The supers are superb, but what is the matter with our lambs today? They are certainly in a bad humor. Now don't imagine at al that we are afraid; oh no, we do not get frightened at such a little thing However, suppose we let them rest for the present. Besides, today is Sunday and it would not be a proper thing to take off honey on that day, moreover I really think that the weather is going to be stormy.

The following week each goes alone and by stealth, as it were, to feel the ground; one towards his Syrians, the other toward his Cyprians. Each time the covers are raised a terrible noise is heard, the alighting board is covered with furies, and a number of thrusts as sharp as though made with Damascene lances tickle us so disagreeably that we discover all of a sudden that the weather is too tempestuous.

"You know," says Raton to Bernard, "I could have taken off a super if it had been necessary, but I didn't want to do it."

The following Sunday Raton, the less brave of the two, after a timid reconnaissance, judges it prudent to lie down in the shade rather than trouble the Sabbath repose of their highnesses, the princesses of Cyprus. Bernard, on the other hand, to whom a good dinner had given an indomitable courage (perhaps a glass of old Neufachatel had also contributed a little)—Bernard, then, advances boldly against the enemy—pardon, against his friends, the Syrians. With his shirt sleeves rolled up, his arms bare, a strong pocket knife in his hand, and a fine long-bladed knife (to which he is very partial) at his belt, calm and resolute, he was truly beautiful to look upon. In vain the fanfare of the enemy plays its most war-like marches; neither "Sempach" nor "Roll drums" succeed in making him quail, nor even budge, nor cause him to make a single useless gesture.

But all this was only the skirmish of the advance guard. Two or three combs had already been taken from the super and Bernard was on the point of shouting victory, when suddenly the charge sounded. The main body of the army, then the rear guard itself, takes the field. The maneuver fails, the line must fall back, as the good Lafontaine says, that is, capitulate. Furious, stung, defeated, Bernard beats a retreat. But the outraged enemy come out of their citadel, pass over a high house, and attack people and animals on the neighboring road. Soon the sharp cries of women mix with the furious howling of dogs. The cats, even, make disorderly jumps and the fowls disappear with flapping wings. Night alone stops the combat and puts an end to the carnage.

Like Charles the Bold after Grandson, Bernard dreams only of vengeance. Under cover of the shades of night, no longer with his face bare, but clothed with a veil, arms and legs well wrapped, armed with a terrible automatic smoker whence a cloud of smoke issues, and with an immense watering-pot filled with ice-water, he starts toward his beloved Syrians. Blinded with smoke, inundated with cataracts of ice-water, they beg an armistice. But their cruel enemy removes a super in one piece and carries it twenty paces away. At the sight of this abduction all unanimously swear then and there to vanquish or to die, and they pour forth to the assault; the enemy, like Charles at Morat, is still obliged to flee.

Like him, Bernard, furious that there vile Syrians had robbed him of his fame for invincibility, decides to return to the charge, or at least to attack the separate contingent which was at the foot of the tree. And what time was that? At three o'clock in the morning when the enemy was sleeping innocently. Truth obliges me to say that this time he carried off the victory, contrary to what happened to Charles the Bold at Nancy. It will be well to add that this attack much resembled an ambush.

The war-horse perished the following winter. Bernard claims that it died a natural death. Others say—but sh.. Let us not slander him.

Washington, D. C., April 8, 1904.

NO PUNICS IN ALGERIA.

By. John Hewitt.

DEAR Mr Hill:—Will you allow me to correct those paragraphs in American Bee-Keeper on pages 100 and 101 under the heading "Algeria" respecting "Punic" bees. There are no Punic bees in Algeria any more than there are Italians in Cyprus. Algerian bees are very bad tempered and somewhat darker in color than Punics. Mr. T. W. Cowan was the first to try to get them tried instead of the real thing and told his readers in 1891 where to get them in Algeria and discribed the bees of Tunis as "impure." Since then there have been several attempts to pass off the bees of Algeria, Morocco and Minorca as the same race. Punics are as different to these races as possible—far more so than Italians are to Cyprians—while now owing to Mr. Cowan being the means of getting Carniolans imported into Tunis, it is impossible to get them really pure from Tunis now.

I notice with satisfaction, what you say on page 106; which is a fair report, but really, although tameness and hard working are good points, I consider their non-swarming—when given plenty of room—and their being proof against foul brood, of greater value to honey producers. Just fancy the difference between an apiary of 100 stocks, all swarming at once and one you know will work without the least watching.

Sheffield, England, May 20, 1904.

PHACELIA AS A FORAGE PLANT.

By Dr. C. C. Miller.

I HAVE just read with much interest Henry E. Horn's communication, page 53, and hope it may be the indirect means of obtaining the much needed information as to the value of Phacelia tanacetifolia as a forage plant in California. Mr. Horn is not entirely correct in thinking that the value of phacelia as a honey plant was first discovered in Germany and that only ten or twelve years ago. Long before that time it was mentioned in Vick's seed catalogue as a great favorite with bees—I think the only plant thus mentioned. Perhaps as much as forty years ago I was familiar with the plant, as no doubt many others were, and enjoyed seeing the unusual numbers of bees attracted by it. I also cultivated it as a window plant in winter for the beauty of its flowers, as also for their fragrance. I think the flowers are not fragrant when grown in the open.

It never occurred to me to plant it on a large scale, because I knew of no value attached to it except as a beautiful flower and a honey plant. Mr. Horn is right if he gives to the Germans the credit of discovering its value as a forage plant, if indeed it has any such value. I suspect that what he says as to its forage value has been gleaned from the reading of foreign bee journals. In them it has been uninterruptedly boomed for many moons. As to its honey value there is but one voice. The song in its praise as a forage plant, however, has in it discordant notes. The reports of some give it high praise; others contain "ifs" and "buts."

So far as I know, no one yet has ventured to come forward in this country to give any testimony as to its value for forage. The authorities at Washington disclaim any knowledge of it. So I am skeptical. I hereby challenge Mr. Horn or any other Californian to produce evidence that stock of any kind care for phacelia, either green or dry as forage. If a number of them will come forward with such overwhelming proof as to convict me of being a presumptuous ignoramus, it will please me well. But I have thrown out much the same challenge more than once within the past two or three years, and every one of those California chaps has been dumb as an oyster on the subject.

It would be a great thing for beekeepers if it could be proven that phacelia is a valuable forage plant on American soil, but—but—

Marengo, Ill., March 11, 1904.

INTRODUCING LAYING QUEENS.

By Jacob W. Small.

AS far as my observation and experience go, it is not alone the fact of a new queen being a stranger, that causes the bees to attack and ball her. The more important cause is the smell of the new queen.

I have taken a laying queen from a swarm of bees, caged her with some half a dozen of her own bees for a few minutes, and upon liberating her upon her own comb, to her own bees had her immediately balled, and she would undoubtedly have been destroyed if I had not rescued her by a liberal application of smoke and proceeded to introduce her as an entire stranger. Now this may seem strange upon the face of it. She was certainly no stranger to her own bees, but she had absorbed, so to speak, the scent from the cage in which she was placed. Consequently she was to the bees practically a strange queen. Further than this, the bees which were caged with her upon being liberated were at once attacked by the other bees and killed.

Acting upon this fact I conceived the idea of making, of screen wire cloth, a small box two inches or so upon the side, with the ends turned up about three-eighths of an inch, like the cover of a small card-board box.

I place the queen to be introduced with her bees in this box, using a piece of card board to form the other side of the box temporarily. Now remove one of the frames from the hive you wish to introduce your queen to and lay the screen box, paper side down, upon the comb, covering some place where there is a little honey. And after withdrawing the paper from between the box containing the queen and bees, press slightly upon the screen box, imbedding it in the comb just enough to hold it in place.

Put the frame back into the hive and allow it to remain a day or two, then remove the frame, liberate the queen and her bees, who have already acquired the smell of the new combs of the hive, and upon replacing the comb the queen will be accepted without question almost invariably.

Of course, you must allow no queen-cell in your hive during this operation.

I have tried the water cure (so called) and have had very little success in that direction. I have a glass nucleus hive, in which I have conducted some very interesting experiments in introducing queens, the actions of the queen and bees being observed closely. I have tried several of the various methods.

I find that no matter how long the queen has been left caged in a hive, whether liberated by the candy method or otherwise, she will immediately retire to some remote corner of the hive or behind some close fitting frame where she will remain for some time, seemingly afraid of her life. And if crowded out of such a cover will at once put for another, if possible.

But with the method here explained she will almost invariably pay no attention to the bees or they to her, but will both attend to their several duties regardless of each other. At least such has been my experience so far.

Haverhill, Mass., May 16, 1904.

This is one of the best and simplest methods of introduction, though one of the oldest known to the craft. Its efficiency, however, is really advanced by caging the queen without attendant bees at all, and placing the introducing cage over emerging young bees and unsealed honey. The cage is better made a full inch deep. It is well also to make it four or five inches long. Unravel about one-half inch on all sides and bend at right angles a full inch all around. It should be firmly pressed into the comb, or the bees may cut the cells away and enter too soon.—Editor.

WINTERING EXPERIMENTS.

Mr. Miller's Favorite Plan Not a Success in Canada.

By J. L. Byer.

APRIL number of the American Bee-Keeper to hand, and among other items I read with interest Mr. A. C. Miller's article on "Results of Some Experiments in Wintering."

By way of preface allow me to say that last season I was pretty well converted to Mr. Miller's line of argument relative to the wintering of bees in single-walled hives covered with tarred felt paper. So much so, in fact, that I took advantage of every opportunity offered, both in private and public conversation with bee-keepers, to express my views on this question.

To prove correctness of my theory (rather Mr. Miller's) by practice, last fall I prepared 26 colonies in two different yards, thirteen in each yard, in manner prescribed by Mr. Miller.

All were good strong colonies, in eight frame Quinby hives, heavy with honey. Entrances three-fourths by five inches, a super on top of all, half the number filled with chaff, balance with six inches of dry sawdust instead of chaff. All the rest of the bees, (over 200) were in packed hives and winter cases.

Permanently packed hives have four inches of sawdust around sides and back, two inches in front, with cushions filled with three to four inches sawdust on top. Winter cases have two hives in each case, close together, eight inches chaff, sides and back, four inches in front, with about eight inches chaff over the top of all.

Now "as to results:" Out of 250 colonies, 20 are dead, and half of the number are among the papered hives.

To make matters worse, of the balance in said hives, only three are in fair condition. Remainder, if they pull through, will only be nuclei by the time the honey flow comes on. The paper covered hives were scattered all through the yards and I think the trial was conducted on as fair a basis as could possibly be arranged. Now I have no "axe to grind" and as before intimated, if the "wish had been father to the thought" why I certainly would have expected different results. Had this same experiment been conducted the two previous winters, no doubt there would have been a different story to tell. It takes severe conditions and tests to prove the correctness of our pet theories.

Just now am inclined to think that as long as I winter bees out doors I don't "believe we may safely and profitably dispense with double hives." While, as with Mr Miller, I find the "experiment was costly" unless we admit truth of the old adage "experience is a good teacher," am not inclined to own up that "it paid."

As to what Mr. Miller says relative to age of bees and other conditions essential to successful wintering, I agree in the main; however, I do know that by giving proper attention we in this latitude can, one year with another, winter 95 per cent of our bees successfully in packed hives. Theory is all right in its place, but let us be careful lest in our theorizing we sacrifice too much of the practical, only to find later on that after all we were mistaken.

Markham, Ont., April 12, 1904.

ADVICE FOR THE NOVICE.

By G. H. Sammis.

IT MAY be a good time to buy bees in the winter, but it is a poor time to move them. In cold weather the comb is brittle, and it is liable to break down in moving the hive, not only causing the loss of the honey which has been left for winter stores, but leaving a vacant place which the bees cannot keep warm as they will when the frames are filled with honey. The bees, too, when disturbed by moving fill themselves with honey and unless there is a warm spell so that they can take a cleansing flight, this may result in heavy loss from dysentery among them. This last is a serious objection against moving them, even when the distance is but short and they are handled so carefully as not to break down the comb. Before moving them see that everything is ready for their reception. Have the stand just where it is wanted; near to, if not in, the orchard, away from roads and driveways and where neither animals, poultry nor children, will go to stir them up and keep them cross and, not in least importance, place them so that they will have shade on hot days and a windbreak in winter, as a shelter from the prevailing storms and winds. If there is not such a place just right, set them where they should be and build the shade and set out the trees for a windbreak or build a board fence for that purpose. See that the necessary supplies are on hand early in the season if not before the bees arrive. There should be at least one empty hive for each colony and two would be better, as they are pretty sure to swarm once, and possibly two or three times, if care is not taken to prevent it, and for those with little experience I think it better to allow swarming than to try to prevent or control it, or to attempt dividing the colony. To do either of these well is an art not often learned in one lesson. With the hive should be frames, sections, etc., and enough good foundation to fill the frames and surplus boxes, and to be ready for all emergencies the bee smoker, bee veil, and gloves should also be ready so that the hive can be opened if it seems necessary and so that a swarm may be handled as soon as it clusters.

It may be more profitable to send a long distance and pay a round price for a colony of Italian bees than to accept a hive of black bees as a gift from a neighbor, but we should take our chance with the black bees at a reasonable price if near home, and should then send to some reliable party for an Italian queen, paying what might be asked for a tested queen.

Only a few weeks would be required to change a colony of black bees to a colony of Italians and to two colonies as soon as they swarmed. To buy a swarm in any but a movable frame hive would probably be poor economy, as it needs an experienced hand to transfer it into a proper hive, and the help to do this will greatly increase the cost of the colony. If it is done, do not charge the expense against the bees, but stay and see it done, learn all that it is possible to learn about the bees while watching the operation and consider the expense as a part of the cost of an education in bee-keeping.

Centerport, N. Y., March 1, 1904.

A QUEEN HUNTING EXPEDITION.

By. M. F. Reeve.

PRESIDENT Townsend, Secretary Hahman, and a few other members of the Philadelphia Bee-Keepers' Association, including your correspondent, went down to Woodstown, N. J., on Saturday, June 11, to help Messrs. Selzer and Honor, who operate a large apiary in that town, to hunt queen bees.

The apiary was formely owned by J. D. Coles, who gained much notoriety about three years ago by having a controversy with the citizens and the town authorities about his bees, which were alleged to be a nuisance because they were said to soil the family washing, sting the children,and otherwise misconduct themselves. The matter got into the courts finally.

Cole's health became poor and he concluded to give up bee-keeping. He dealt in comb and extracted honey and had nearby trade. None of his honey went to the Philadelphia markets.

The apiary consisted of 17 hives of various makes. including some of Cole's own handiwork. The bees were black and Messrs. Selzer and Hornor say they were very lively when they first tackled them. The idea was to transfer the colonies to eight and ten frame dovetailed hives and catch and kill the queens and supersede them with full-blooded Italians. The Philadelphians who made the journey were amply repaid for their trouble.

Messrs. Hornor and Selzer did the actual work of taking the old hives apart and shaking down the bees from the frames in front of the new hives. Each visitor was handed a frame covered with bees and asked to locate the queen.

"When you find her give the Indian yell" said Mr. Selzer. One member, whose eyes were sharp, found five. These were caught, their heads pinched and they were tossed over the fence to the chickens. New queens were given them or will be in a few days. Several colonies were queenless. Most of the hives were well stocked with honey. The bees were gathering white clover nectar at the time. The frames not having been wired, many of them were broken down on being handled, and the combs, with their heavy weight of honey tumbled out.

At least three of the hives appeared to have been tenanted by swarms which had been given empty frames without foundation sheets or even starters. As a result the bees had gone back to first principles and had built their combs the shortest way, crosswise of the frames.

Mr. Hornor was obliged to cut the frames to pieces in order to get out the combs. These went into the extracting cans. All good combs were given back to the colonies.

All containing brood were cut out. Mr. Selzer says the Woodstown place has been leased for a year and will be used as a shipping point.

The past winter having been so cold

and severe played havoc with bees throughout the United States and just now bees are bees. I understand Selzer and Hornor are both hustlers and know the business from A to Z.

Rutledge, Pa., June 16. 1904.

OUR CORRESPONDENTS

Metz, Wis., May 28, 1904.

Mr. Editor:

I have some questions which are not well answered in the text books that I wish you would answer in July Bee-Keeper:

1.—I bought a number of 5 3-4 extracting supers that have no bee space over the frames—only about a scant one-eighth of an inch. Is not a bee space necessary? I thought so.

2.—Many bee-keepers speak of quilts. Of what and how are they made and how used? As no cover fits closely, I want to use something under it. Will a cloth of any sort not sink down in the middle and cause trouble?

3.—I see that Frank Benton, in his "Manual of Apiculture," third edition, page 44, says to leave only one-eighth over the frames. Is that all right?

4.—Do eggs always hatch three days after laying, or do they sometimes take a longer time? I mean, do they ever stay in the hive for weeks in the winter, or at other times, before hatching?

By answering in July number you will oblige, Beginner.

1.—A bee space is not necessary over the frames, but is quite essential between the top bars of the lower story and the bottom bars of the upper story when tiering up.

2.—Quilts may be made of any cotton goods. Twilled goods is preferable. Tear them in sizes to just cover the top of hives, roll them up and dip edges in melted wax to prevent raveling, and lay in direct contact with top of frames and press down smoothly. In your climate, such an arrangement is really preferable to the bee space and honey board.

3.—One-eighth is all right over frames, but if tiering up, upon such a hive, it would be necessary that three-sixteenths to one-eighth space be afforded below frames in upper story. The combined spaces, it will be noted, would give that necessary between frames. Read farther down on same page of Prof. Benton's book, which fully explains this point.

4.—Eggs hatch in about three days from the laying at all times—if they hatch at all—we believe.—Editor.

KEEPING SWARMS SEPARATE.

Westville Ctr., N. Y., Apr. 25, 1904.

Mr. Koop asks for advice where a number of swarms alight on the same limb. I can generally prevent swarms clustering together, when the second swarm doesn't come out until the first has clustered, or nearly so, and the third until the second has clustered, and so on, by simply spraying the cluster with cold water and keeping a spray of water playing between the clustered swarm and the swarm in the air. It sometimes makes lively work and takes two or three of us, but I have had four swarms issue one after another so quickly that all we could do was to keep spray pump and dippers going. But we landed them on four different trees within a radius of twenty-five feet, and then took our leisure hiving them. I do not say this plan always works, but it has saved me lots of work separating swarms. I think that bee-keepers who do not run their apiary on the clipped wing plan will find it worth trying.

I think that bee-keepers who live in localities where they have cool nights during the spring months, as we have in northern New York, should provide more protection over the brood nest than a three-eighths board and a thin oil cloth. If they would pack them on top with dry chaff, sawdust, or planer shavings, they would have less spring dwindling, more early swarms and more bees ready when the honey flow comes. I put the empty supers on the first thing in the spring, when I set them out, and fill them up with planer shavings; or, what is better, fill a bran sack part full of chaff and pack that in closely. It is handier to take off and more convenient when looking colonies over.

I keep packing in until I put sections on.

This is a Puzzle.

Two years ago I took off a few supers of honey and set them in a dark room. The bees would not leave one of the supers. I thought the queen must be with them, so about dark I took the holders out and brushed them carefully back into the hive. The next morning there was nearly two quarts of dead bees piled out in front of the hive. Others tell me I must have returned them to the wrong hive, but I know they were not. Now, I would like to know why they killed those bees. W. H. F.

To Beginners: We will give $1.00 cash for the most plausible solution received before July 15.—Editor.

Maple Grove, N. Y., May 16, 1904.
Editor Bee-Keeper:

I became the owner of my first colony of bees in 1902, and I want to caution beginners about carelessly handling new combs. After hiving my first swarm, and it had filled the hive with new combs, I had to move it about a half-mile. After hauling it in a two-wheeled cart to the new location, I attempted to carry it to the stand, but stumbled, and bees, hive and all lay in a pile on the ground. I managed to get things together again, but the combs are so crooked that I am unable to handle them. That is why I want to caution beginners never to try to carry a hive without someone to help, for the combs are so tender and brittle that a slight accident may spoil the whole thing.

Yours truly,
R. T. Crandall.

Our correspondent seems to have overlooked the fact that when two, instead of one are carrying the hive, the chances of stumbling are two-fold greater than when but one person is handling it. A single story hive is more easily and safely handled under all circumstances by one person. "Stumbling," however, is an exercise which should not be indulged in at such a time. It is better to wait until one is through with his bee work, if he must stumble, and repair, empty-handed, to an open field to do his stumbling. It is allowable to think about stumbling when carrying a hive of bees, but the act itself must be deferred.—Editor.

BEES ON THE FARM.

There is no reason why farmers should not handle their bees on profitable methods even if they have but a few colonies. Bees as kept on the farm, a few colonies here and there, scattered in different localities, ordinarily do the best business, for they are not overstocked as they are frequently in large apiaries. Almost double the amount of honey can be obtained from the colony thus situated and bee-keeping, as a rule, is much more profitableif the bees are in proper shape to do good work. The greatest mistake farmers usually make, according to one versed in bee culture, is that of limiting the surplus boxes, thus not furnishing the bees with enough surplus capacity. The bees fill this limited space with honey in a few days at the beginning of the honey season and afterwards turn their attention to swarming, and several swarms will be the result instead of a large honey yield. Farmers, in connection with their other work, might as well reap hundreds of pounds of the finest honey instead of obtaining but a few pounds if they would only give the bees plenty of storage room, and promptly take the honey away as soon as completed. The rule among small bee-keepers is to give but a small surplus capacity in the spring, and let this remain all summer to be taken off in the fall, supposing that it is an all summer's job for the bees to do, when in most cases this space is filled in a week or twofi and allowed to remain in the hive all summer which reduces it to a poor rade of honey as well as a small amount. Hundreds of pounds of first-class honey might have been obtained by giving a large capacity, and removing the honey as fast it is stored and completed. Some localities are better than others, and some seasons are better than other seasons, but it is never a mistake any season to thus provide for the most at all times and under all conditions. By little forethought and work on the part of the average Southern California farmer or fruit grower he could secure all the honey necessary for his own use.—Rural Californian.

THE

Bee-Keeping World

Staff Contributors: F. GREINER and ADRIAN GETAZ.

Contributions to this Department are solicited from all quarters of the earth.

CHINESE BEES.

Two kinds of bees exist in China. One of large size is dreaded by the natives, and nothing has been done toward "robbing" their nests or to keep them in hives.

The other is much smaller. The workers are only three-eighths of an inch long, and the queens nearly half an inch. They are black, with less hair than the European kind, and that hair is of a rusty color. When the abdomen is distended, a yellow streak or spot is seen occupying about one-third of the width of each skin between the rings. The stinger is short, the venom glands more developed than those of the European kind, but the sting is less painful than that of the European bees.

Their nests are hung under the limbs of trees or some other more or less sheltered but not completely inclosed place. Hunting wild bees is not always easy; so the natives are in the habit of putting here and there on some trees, pieces of bark about six feet long, and placed horizontally or nearly so, so that the under surface furnishes the wild bees a sheltered place to hang their nests. Of one hundred pieces fixed that way, from twenty to forty are soon found occupied by swarms, and can easily be harvested. If possible, the tree called tram (Melaleuca leucodendron) is chosen, as the bees seem to have a preference for it. The "harvesting" is usually done in August. Each nest furnishes one or two pounds of wax and a quantity of honey. To climb a tree, the hunter uses a number of bamboo spikes, which he drives in the bark of the trees. These hold the weight of a man as well as an iron spike driven in a telegraph pole. The woods are divided in portions and these leased to those who will take what honey, gums, resins and other wild products are there.

These bees are also kept in hives; that is, hollow logs, closed at the ends with pieces of bark or boards fastened with "buffalo chips" mortar. When the robbing is done, it is merely a question of cutting the combs, driving the bees off with smoke, mashing combs and all, and melting them to separate the honey and the wax. The honey is decidedly of inferior quality.—L'Apiculteur.

TURKEY.

A brigand named Nebi was pursued by the Turkish "gendarmes." He finally took refuge in a small house which, like all the oriental houses, had but few windows, just big enough to enable the brigand to shoot down the "gendarmes" at his own convenience.

In a garden nearby were some bee hives. The sergeant of the gendarmes finally took one of the hives and managed to throw it through the window into the house then occupied by the unfortunate Nebi. The result can easily be guessed. What may not be so easily guessed, is that the unfortunate Nebi died in the hospital at Smyrna the next day, from the results of the stings received.—L'Apiculteur.

FRANCE.

Mr. Betmale observed a young queen coming out to mate on the 9th of April. The weather was unfavorable a part of the time, the drones very scarce yet. So, after several unsuccessful attempts, that queen mated on April 30. The 3rd of May, eggs were seen in a few cells, workers and drone cells both. May 4 the queen came out and mated again. The fifth and following days, eggs were found in abundance.—L'Apiculteur.

An apiarist of St. Jory (France) was sued for damages done by his bees to the grapes of one of his neighbors. After investigation, the court decided that, as wasps and other insects were also guilty of said damages, that other bees than those of the apiarist had likely taken part in the pillaging, that as the bees did not open the grapes, but only sucked the already damaged grains, the apiarist could not be held responsible only for a small part of the damage done, and therefore condemned him to pay damages to the amount of 60 cents!—Gazette Apicole.

All apiarists know that foundation in brood combs is liable to buckle more or less. Mr. Kuhn claims that in the process of manufacture the wax is pressed hard and its molecules are in an abnormal state. When the comb of foundation is placed in the hive, the wax softens enough to permit the molecules to spread apart to their normal position; hence an increase in the size of the sheet and the consequent buckling. To avoid this, he warms the sheets of foundation until they are quite soft before putting them in the frames. Thus treated, the foundation never buckles. The fact is confirmed by Mr. Ualon, who had recently made 2,400 brood combs with heated foundation. All are perfectly straight.—L'Apiculteur.

The price of honey has fallen greatly in France for the last few years. The customary price for 100 kilo. used to be from 110 to 130 francs. Now 90 francs is the highest price paid, and many bee-keepers are thankful to get 75 francs for their crops. It is intimated that the movable comb hive is to blame, which makes it possible to obtain from 20 to 30 kilograms per hive, against five to ten kilograms under the old system. It is also said that large quantities of honey are imported, upon which no duty is levied. —Leipz. Bztg.

BELGIUM.

The process of transferring generally used in Europe consists in drumming the bees and the queen into the new hive, then put a queen excluder on it, and the old hive on the excluder, closing all openings except the entrance to the new hive. After twenty-one days the old hive has no more brood, and can be demolished.

The process does not always succeed. Sometimes, if the colony is weak and the weather unfavorable, the bees remain in the old hive, and the queen is left alone and sometimes starves.

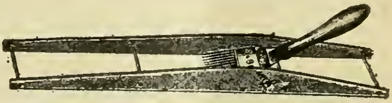
Occasionally there is a considerable amount of drone brood in the old hive about ready to hatch, when the operation is performed. After they emerge, they are prisoners, die in the hive and obstruct the queen excluder, causing the loss of the remaining brood.

Just now, while writing the above two lines, the thought occurs to me, that this could be obviated by opening now and then the entrance of the old hive and let them out.—A. G.—Le Rucher Belge.

As stated before, artificial, or, rather, anticipated swarming, has been largely practiced in Europe. Some of the methods used involve the changing of place of the colonies. Mr. Whathelet warns the "novices" to never put a colony in the place of another except in good weather and good flow of nectar, otherwise fighting or robbing would follow.—The Rucher Belge.

GERMANY.

For years the German bee-keepers have used various tools for the purpose of removing the cappings from combs to be extracted. They have the uncapping fork, uncapping harrow, the spiked roller, the uncapping plane, and also some more complicated machinery which does the work. All these tools do not seem to satisfy. Fredinand Holwek's new patented uncapping plane, as herewith illustrated, is said to do the work perfectly. Nothing better need be looked for.



The inventor says in Deutsche Imber that with uniform straight combs the cappings are all removed and are perfectly dry. This implement is now manufactured in Sonnenburg and costs about $1.25.

It has been found profitable to space frames in extracting supers a little further apart than such for brood bearing. A. Weber, of Schoenau speaks in Leipz. Bztg. of using very thick combs of more than two-inch spacing. His extracting frames are made one and one-half inces wide, and old comb is used preferably to fill them. After being used once, and having the cells all lengthened out, the queen cannot deposit eggs in them —at any rate, the instances are very rare when she does, even when the brood chamber is contracted. Such thick combs prevent the storage of pollen. Herr Weber says that a substantial extractor has to be used with such heavy combs.

That a colony of bees may be wintered without pollen, and even without combs. A Ziche reports in Central Blatt of having succeeded several years ago with a naked swarm of bees which he received from a friend late in the fall. The bees were put into an empty straw hive and kept in a garret above a heated room during the winter months. They were fed on liquid food (honey). At the close of March no comb had been built, but soon after they began in earnest to build a comb. They were then placed in the bee-house and feeding was continued. The colony proved to be a profitable one that season.

During 1903 there were imported into Germany, in round numbers, according to "Die Biene und ihre Zucht:" From Chili, 1,980,000 pounds of honey; from Mexico, 636,000 pounds of honey; from Cuba and Porto Rico, 1,267,000 pounds of honey; from the United States, 840,000 pounds of honey.

Earthwax has largely taken the place of beeswax. It is known under the name of "ozokerit" and is found in Utah, California, Roumania, and Galicia. Its color is dark brown, but when refined can hardly be told from the genuine beeswax. It is spaded out like clay, and its value in the raw state is 0.76 marks per kilogram.—Centralblatt.

Otto Schulz, of comb foundation fame in Germany, is now manufacturing comb foundation with a metal base.

SWITZERLAND.

Eight bee-keepers of Switzerland, who give the answer to the question, "Do queenless colonies construct queen cells over eggs or larvae?" are pretty well agreed that larvae are always selected. In cases where only eggs are present the bees wait until some larvae have hatched before cells are built over them.—Schweitz. Btzg.

SIBERIA.

"Apiculteur" says that there are seventeen different kinds of linden trees in Siberia which blossom in close succession, thus furnishing the bees a long continued, most excellent honey season. The principal hives used are American hives. As the winters are very severe, only strong colonies are taken into the winter. Indoor-wintering alone is practiced.

AUSTRIA.

Hans Techaczek appeals to the wives of bee-keepers and urges them to enter into the work of bee-keeping and assist their husbands in the handling of the bees. He says that it has come under his observation a number of times that, where the bee-keeper suddenly died, the bees and the apiarian implements were almost as good as given away, when the wife, if she had been able to continue the business, might have had a good income. Techaczek speaks in particular of the death of a noted bee-keeper, Herr Sparytka, who left an apiary of fifty-eight fine colonies. They were sold at a low figure. Schmid, of St. Valentine, left a magnificent apiary, which, when sold with all the apiarian implements, did not bring as much as his American foundation mill was worth.—Bienen-Vater.

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It is a mystery where some of our agricultural exchanges get much of the information (?) with which to stuff their "Bee Departments." The supply appears to be always ample and diversified. It must be machine made. A year or so ago one of the leading journals in this line stated that slow cooling was the secret of bright yellow wax. Now, from this same popular source we get this equally brilliant "tip;" "The experiment of clipping the queen's wing to prevent swarming has been tried with only indifferent success." These are but samples of the apiarian wisdom usually employed upon the staff of our agricultural publications and syndicate newspapers.

THE AMERICAN BEE-KEEPER

PUBLISHED MONTHLY.

THE **W. T. FALCONER MANFG. Co.**
PROPRIETORS.
H. E. HILL, - EDITOR,
FORT PIERCE, FLA

Terms.

Fifty cents a year in advance; 2 copies 85 cents; 3 copies $1.20; all to be sent to one postoffice.

Postage prepaid in the United States and Canada; 10 cents extra to all countries in the postal union, and 20 cents extra to all other countries.

Advertising Rates.

Fifteen cents per line, 9 words; $2.00 per inch. Five per cent. discount for two insertions; seven per cent. for three insertions; twenty per cent. for twelve insertions.

Advertisements must be received on or before the 15th of each month to insure insertion in the month following.

Matters relating in any way to business should invariably be addressed to

THE AMERICAN BEE-KEEPER,
Falconer, N. Y.

Articles for publication or letters exclusively for the editorial department may be addressed to
H. E. Hill,
Fort Pierce, Fla.

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Editorial

There have been numerous reports of the season's failure in Southern California, but the darkest picture of all comes from Secretary Brodbeck, of the National Association, to the American Bee Journal, in which he says: "There will be no honey to speak of produced in Southern California this season, and, furthermore, it now looks as if it will prove the most disastrous year we have ever had, for the bees in the honey localities are not securing enough honey to live on." On the other hand, a "honey-man" from Los Angeles, who called upon a large Eastern dealer, June 11th, assured him that no less than 75 car loads of honey—1904 crop—yet remained unsold in Southern California, upon that date. It's hard to believe that such a thing exists among "honey-men," but it looks mightily as if there was a liar abroad in the land somewhere.

Mr. George J. VandeVord, Daytona, Fla., writes that he has had a most disastrous season. Has had over 300 nuclei in operation and, since April 15th, not five per cent. of his young queens have mated and begun to lay. He has had to decline numerous orders, and is returning money sent for queens. He states that his ad in our Directory has proved "a profitable order getter" for him, and asks that it be discontinued until he can locate more favorably. Like Mr. Vande Vord, we believe Florida to be one of the most unfavorable countries in the United States for the rearing of queens. No better queens, of course, can be reared anywhere than in Florida, but so many conditions conspire to render the work difficult that only those exceptionally well located can make a success of it. We have similar complaints from other Florida breeders this season.

The annual convention of the National Bee-Keepers' Association will be held in St. Louis, Mo., September 27, 28, 29 and 30. The 27th and 28th will be "International Days," all foreign bee-keepers to take part. The 29th will be "National Association Day," and the 30th, "Inspectors' Day," the latter to be devoted to the discussion of diseases of bees. General Manager France, writes that he is preparing a large map of the United States and Europe, and upon each State will be affixed one-pound glass bottles of the various kinds of honey produced in the respective States. A stenographic report of the convention will be taken and furnished in full to all members. Programme of the meeting will be issued later.

Saw palmetto, one of the chief sources of honey supply in South

Florida, has failed entirely this season. This is another factor which should stimulate a more active market in the East.

"THE IRISH BEE GUIDE."

Our sincere thanks are due the author, Rev. J. G. Digges, M. A., editor of the Irish Bee Journal, for a copy of the new apiarian work, "The Irish Bee Guide." The new volume contains 220 pages, very nicely printed, and substantially bound in cloth. It completely covers the subject of bee culture, which is treated in Dr. Digges' peculiarly comprehensive and concise style. The illustrations are numerous and of exceptional interest, being well executed and each bearing a significant relation to the text. Many of these illustrations are reproductions from the author's own photographs, and the general air of originality which pervades the work is admirable in the extreme.

The book is one which should find a place in every apiarian library in the world. The numerous full-page portraits of Ireland's beacon lights, are of especial interest to those who have read their pen productions so frequently in the European periodicals, while the original halftones are not less noteworthy. We bespeak a wide circulation for this recent acquisition to apiarian lore.

LET THE HONEY GET RIPE.

The agricultural press, in general, usually makes a mess of anything attempted in the line of apiarian discussions, but the following, from the Florida Farmer and Fruit Grower, is a rare exception to this rule, and the comment and suggestions are so excellent that we have pleasure in reprinting it in the American Bee-Keeper:

"One of the things—in many cases it may be said the thing—that have done more than all else to injure the sale of extracted honey, is the putting upon the market of honey that is not well ripened. Such honey does not improve in quality after it leaves the hands of the producer; generally, if not always, it deteriorates, sometimes so much that the producer would not recognize it as the honey he extracted. It becomes thin, inclined to sour, with a flavor so vile that it is not fit to put on the table. If the one who puts such honey on the market were the only one affected by it, it would be less matter. But the whole market is to some extent affected by it. The consumer who gets a sample of such honey is easily persuaded to believe that it is no longer possible to get honey that is pure, or if he believes it pure, he concludes that he is not fond of honey, and does not care for more.

"What are the inducements in extracting unripe honey? One is, that it saves labor to extract before the honey is sealed. But the mere saving of the labor of uncapping would be but a small inducement were it not for the other and greater inducement of a larger quantity. To get just a little more honey by extracting before uncapping, some are willing to spoil the future chances of themselves and others for the sake of the present gain.

"Now comes Editor Hill, of The American Bee-Keeper, backed by no less an authority than the veteran, O. O. Poppleton, saying there is nothing gained in quantity by extracting before ripening. Ninety per cent. of the total evaporation occurs during the first night in the hive, and the further improvement is not so much a matter of evaporation as a matter of influence caused by the presence of the bees, an influence subtle, but positively known to every experienced apiarist, whereby the honey slowly but surely attains that degree of body and flavor that make the consumer who samples it wish for more.

"The experiment stations would be doing good service if they would decide for us just how much can be gained in weight by extracting unripe honey, but a little thinking ought to convince anyone that the amount must be very small compared with the large amount of mischief caused by placing such honey on the market. On any good honey day, take out a brood-comb and you can shake out easily the nectar—not honey—therein contained; but go the next day before the bees have had any time to do any gathering and no nectar will be found. It can hardly be too strongly emphasized, that the gain to the man who puts unripe honey on the market, if in any sense a gain at all, is overbalanced by the resulting loss to himself, besides doing an irreparable mischief to all other producers."

THE ORANGE BLOSSOM AS A HONEY PRODUCER.

The idea seems to prevail among the inexperienced that the orange blossom is an important factor in swelling the honey crops of producers located in orange-growing sections. Every year we receive letters which prove this fact. The orange blossom is so beautiful and fragrant that it is universally admired, and the bees join humanity in this universal admiration. However, there appeared to be such a diversity of opinion in regard to its nectar-yielding merits that we decided to consult expert and experienced persons in regard to the question, and the result has been that much space this month was devoted to discussing the question.

But once in his life has the editor of The Bee-Keeper been permitted to see and taste a sample said to be pure orange blossom honey. This was a number of years ago, in Southern California; and the said sample was not white honey. It was a light amber, with a flavor actually suggestive of the fragrance of the orange blossom, with which he had for years been familiar. It is doubtful if there lives today a man who is better qualified to speak upon this subject than Mr. W. S. Hart, whose article we publish in this number. Mr. Hart is not only one of our most progressive and successful apiarists, but is eminently in the front rank of America's orange growers, and his article is therefore considered exceptionally meritorious in this connection.

We have heard of large crops of orange blossom honey, and have read of the immensity of the flows during the period of orange bloom, but just what the producers do with these great harvests is not known to us. Orange blossom honey has certainly never achieved prominence as a commercial commodity, and, from our limited experience in orange growing sections, we should regard it as an unimportant source of honey. We should be much pleased to be able to secure a one-pound sample of this honey, for exhibtion at St. Louis, but very much doubt our ability to get so much as one pound.

The excellence of this product seems to be generally conceded, but Mr. O. O. Poppleton advises us that personally he finds a disagreeable taste lurking in the mouth soon after having eaten it. This is the first and only instance in which we have had an unfavorable report in this direction.

In conclusion we would say to those who contemplate moving to the orange groves of Florida or California, in order to avail themselves of the bountiful harvests of honey from this source, Don't do it! If you are in a maple or elm locality, we think you have a fair equivalent for orange blossom.

THE LATE DEACON HARDSCRABBLE.

Many of our readers have written to express their regret for the loss of our late correspondent, Deacon Hardscrabble. In fact, we have been somewhat surprised to learn of the deep-rooted affection held by many of our readers for the Deacon. Several complimentary press notices have also appeared in other journals. The Rural Bee-Keeper says:

"Deacon Hardscrabble, a humorous and sarcastic writer for the American Bee-Keeper, is dead. By his death the bee-keepers of the country have sustained a great loss. He was one among the soundest writers to any of our bee journals."

Gleanings in Bee Culture expresses its regard for the departed Deacon in this wise:

"A prominent feature of the American Bee-Keeper for a long time has been the articles of Deacon Hardscrabble. Although Uncle John frequently dipped his pen in sulphuric acid, and more frequently fired his gun toward those who might be considered his friends than towards his enemies, he scored a good many fine points. He has gone the way of all the earth, dying Jan. 27. A good photo of him appears in said journal for April."

We, too, are inclined to regard it as a calamity that the Deacon should have been cut down in the very hayday, so to speak, of his terrestrial usefulness, for it did seem that the effort and chief desire of his life were to effect a reformation in beedom; and since his demise, as we tear the wrappers from our exchanges by the dim light of our lonely sanctum, there is sometimes what may be described as an undescribable turbulence about the dark corners of our nocturnal retreat, as if Uncle John were vainly struggling to impart some important criticism.

Now, we are no spiritualist, and are therefore at sea as to a method of relief; but are deeply impressed with a thought that since Uncle John's departure a number of things have accumulated which are regarded as needing attention; and we have therefore called into requisition the services of a mediumistic friend, who, it is hoped, will be able to clear up the mystery of these manifestations. We have also set a number of cameras about the office in such a way, and so equipped, that we may be able to illustrate any phenomenal message which Uncle John may succeed in transmitting to The Bee-Keeper.

This is rather an unusual departure in bee journalism, and a venture which is not unattended with difficulties to one unskilled in the intricacies of spiritualism; but through these efforts we seek relief from such disquieting conditions when concentration of thought upon our editorial work is so important. What the outcome shall be, our readers will learn. We only hope Uncle John will spare us any weird tales of bee-keepers he has recently met, and confine himself to this mundane sphere.

THE OLD WILEY PLEASANTRY.

The Ladies' Home Journal, one of the most widely circulated and influential home magazines in the English language, publishes in its June issue a two-column article contributed by Emma E. Walker, M. D., entitled "Is Candy-Eating Harmful for Girls?' Dr. Walker treats her subject in a manner to convince the reader that he is following one eminently qualified to speak; but when a bee-keeper of the twentieth century comes to the following paragraphs his faith in the writer's wisdom drops below zero. Listen to Emma E. Walker, M.D.:

"One of the causes of indigestion from candy-eating is an adulterant that is sometimes employed—paraffin. This is especially used in caramels in order to make them cut well when poured out of the mold, and it is sometimes found in old-fashioned molasses candy. A most ingenious use to which paraffin has been put in America has been the manufacture of artificial honeycomb. It duplicates the natural combs remarkably well; the little cells are then filled with glucose slightly flavored to give the honey taste, and the artificial product is ready for use. This is not harmful, but it is not honey. Paraffin is not poison, but it is an adulterant, and taken into the stomach it is indigestible."

To the toiling bee-keeper whose every energy for years has been bent to produce and market a pure, wholesome article, educate the fraternity in the science of producing and handling rich, thick, delicious honey, and contributing to a national fund the chief purpose of which is prosecuting those who adulterate liquid honey, is it not enough to bring drops of sweat to his brow to read this hoary canard now in the columns of a magazine the readers of which are numbered by the hundreds of thousands? The damage to honey producing interests of America alone, by the publication of this single paragraph cannot be computed, but it is enormous; and it is the obvious duty of every bee-keeper, everywhere, to lend his aid in securing redress for the injury thereby sustained, by writing the editor of the Ladies' Home Journal, Philadelphia, Pa., asking the editor to be kind enough to assist us in undoing the wrong by stating the truth of the matter to his numerous readers. It will require a very urgent demand to secure such a retraction, for the editors of such publications are loth to acknowledge errors committed by the journals over which they preside. However, about ten thousand letters from bee-keepers may have the desired effect. We trust the reader will promptly contribute his mite by writing an urgent but respectful letter at once.

Below we submit a letter just received in response to a very urgent appeal which we wrote to the Ladies' Home Journal upon reading the foregoing paragraph in its columns:

Philadelphia, June 17, 1904.

Dear Sir:

We regret that you feel disturbed by a blunder which appears to have been made by Dr. Walker in her reference to adulterated honey. We shall forward your letter to her, and quite likely she may be moved to make some reply directly to you.

Very truly yours,
Wm. V. Alexander,
Managing Editor.

Now, in the name of all that is good and great, in this world and elsewhere, what good will it do if Dr. Walker should condescend to "make some reply directly" tothe editor of The Bee-Keeper; or, indeed, if she should write personally to each of the 400,000 bee-keepers in the United States? What we want is that readers of the Ladies' Home Journal be informed that artificial comb honey is not and never was in existence. The Ladies' Home Journal has told its readers that artificial comb honey is made, and it is its obvious duty to take it back, if it cares to sustain a reputation for reliability. If it is honest, and desires to deal honestly with its patrons, it will not hesitate to make an open statement of the truth; but it devolves upon the bee-keepers to impress this truth upon the editor of the offending periodical. The statement is libelous and extremely damaging to an important industry, and the case is sufficiently imporatnt to be taken in hand by the National Bee-Keepers' Association. As an initiatory step, each and every officer of the Association should write a strong letter to the Ladies' Home Journal. If this should fail to elicit the desired retraction, proceedings of a more formal character might be considered. However, the readers of the Ladies' Home Journal must not be left to believe this falsehood, and it is up to the bee-keepers to consider how the evil may best be dealt with.

ANTICIPATED SWARMING.

On page 113 of The Bee-Keeper for June was published an article on "Anticipated Swarming," from the pen of Mr. Adrian Getaz. This the American Bee Journal has reproduced, with the suggestion that it might be worth considering. The Journal also calls attention to one point which may possibly appear obscure to some readers, as follows:

"Mr. Getaz says of hive No. 2, 'The absence of its queen during the eight days that the brood nests were exchanged, has killed the swarming fever completely.' According to the description, the queen has not been absent from the hive at all, but the removal of the colony to stand No. 3 has deprived it of its flying force, and that continued for eight days would certainly destroy all impulse to swarm. The queen, however, will continue laying without interruption, and when returned to stand No. 2 the colony will be as strong as ever. Is it not likely that in many cases it will then decide to swarm?"

We think it will be readily understood that while in reality the queen has not been absent from hive No. 2, she has been absent from the working force during the period of occupancy upon stand No. 3; and it is, doubtless, this interruption the influence of which is supposed to allay the swarming inclination.

Theorizing in such matters is all right as far as it goes, but it does not go very far. If the plan has proven successful by practical demonstration, those interested are at liberty to test its merits in their own practice, and personal opinions as to what may be the outcome are utterly valueless.

MR. THEILMANN DEAD.

In the June edition of The Bee-Keeper was published an article on the "Prevention of Increase," by Mr. C. Theilmann, together with a portrait of the venerable author. The article was written last August, and was held until this year for publication in order that it might be more seasonable. When sending in the contribution, Mr. Theilmann, in a personal letter to the editor, said: "This will probably be the last article I shall ever write for publication." After holding his article for nearly a year, it is rather a noteworthy coincidence that upon May 30, the very day that the June edition was being wrapped for mailing—the edition in which appeared his article and portrait—Mr. Theilmann bid adieu to this "vale of tears." The apiarian fraternity, through the death of Mr. Theilmann, has lost a worthy and highly esteemed member, and The American Bee-Keeper mourns the loss of a true friend.

Doubtless many bee-keepers will have become discouraged as a result of the heavy losses of last winter, and therefore discontinue the business. The time to stick, and stick fast, to any business is when others are withdrawing. Such a general decrease in the producing capacity of the country will have a reaction favorable to those still holding on and increasing their capacity for production.

When writing to advertisers mention The American Bee-Keeper.

An able and experienced bee-keeper in Massachusetts writes: "I consider The Bee-Keeper first-class, and look forward to its coming each month with much interest." That appears to be the general consensus, and is very gratifying to the publishers and editor.

A letter from Editor Putnam, of the Rural Bee-Keeper, River Falls, Wis., under date of June 9, says: "White clover honey bids fair to be a good crop this season. Bees are building up fine and clover is looking well." We trust the fondest hopes of the Wisconsin boys may be realized.

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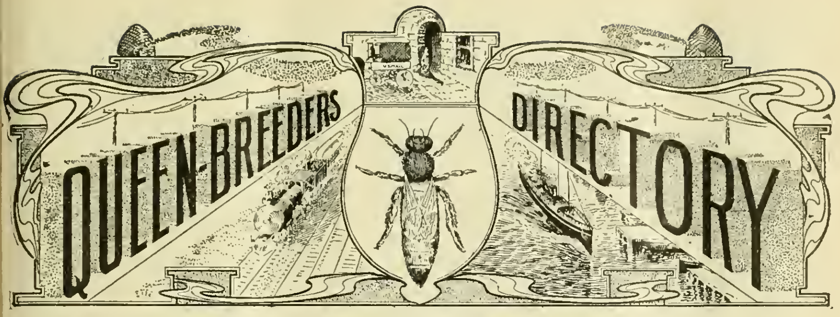

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HONEY AND BEESWAX MARKET.

Denver, Colo., June 11.—The supply of extracted honey is plentiful, with slow demand. We quote today as follows: No. 1 white, per case of 24 sections, $2.75. Extracted, in a local way, 7 to 7½ cents. Beeswax, 22 to 28 cents. Arrival of small fruits has depressing effect on honey market. We are cleared up on comb honey.

Colorado Honey Producers' Assn.,
1440 Market Street.

Kansas City, Mo, June 10.—The supply of honey is very limited, with steady demand. New honey has not begun to arrive yet, and we look for the market to remain in its present condition for awhile. We quote our market today as follows: Comb, $2.25 to $3.00 per case. Extracted, dull. Beeswax, 30 cents.

C. C. Clemons & Co.

Chicago, May 9.—The market has an oversupply of comb honey, very little of which will pass as No. 1 grade. Price is 11 to 12 cents per pound, and off grades at a corresponding value. Extracted, 6 to 7 cents per pound for best grades of white; amber colors, 5 to 6 cents per pound. Beeswax, 30 cents per pound.

R. A. Burnett & Co.,
199 South Water Street.

New York, May 17.—Comb honey very quiet and dark grades or anything but fancy is in no demand. The supply of honey is large. We quote our market today as follows: Fancy comb, 13c.; No. 1, 12c.; amber, 10c. Extracted, white, 6½c., amber, 5 to 5½c. Beeswax, 30c.

Hildreth & Segelken.

Buffalo, May 16.—Fruit hurts the sale of all grades of honey and we cannot encourage shipments here unless shippers want their honey sold low. The supply is moderate and the demand very light. We quote as follows today: Comb, 7 to 12c., as to quality. Extracted, 5 to 8c. Beeswax, 28 to 32c.

Batterson & Co.

Matanzas, Cuba, May 26.—Old crop is about all sold. Last sales were at 26 cents a gallon; one cent additional for each gallon in casks. Beeswax is quoted at $31.25, Spanish gold, per cwt.

Cincinnati, Ohio, June 15.—The demand
honey is slow for this season of the y
which is due to the vast quantities that
held over from last season, and the impc
tion of Cuban honey. We quote amber,
barrels and cans, at 5¼ to 6½ cents. W
clover, 6½ to 8 cents. Beeswax, 30 cents

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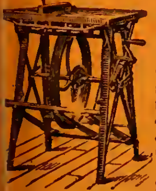

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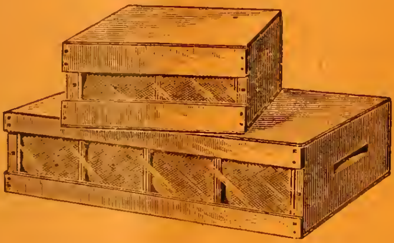

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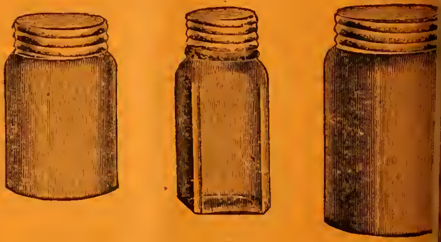

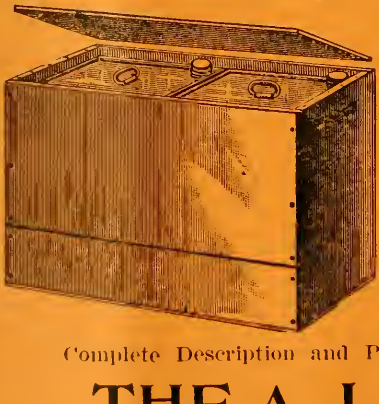

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AUGUST

1904

VOL. XIV NO. 8

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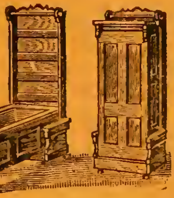

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The News, Fort Pierce, Fla

WHAT THEY SAY.

W. H. Putnam, River Falls, Wis.

Dear Sir:—I delayed answering your letter until I had read the June number of the Rural Bee Keeper and must say as a Bee Keeper of 22 years experience I am more than pleased with it, regardless of the assertions of some that the publishing in this line was already overdone, and if the improvements continue, it will certainly be second to none within its first year of publication. I consider the June number alone worth several years subscription to any practical, live bee keeper and I will say let the good work go on and on. You have a good field and the fact of our having a Bee Journal published in our own state, should be a lasting stimulant to all bee keepers of Wisconsin and the Northwest and 50c certainly cannot be invested to better advantage. You may send me some more blanks.

Yours truly Elias Fox.

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THE AMERICAN BEE-KEEPER

Vol. XIV AUGUST, 1904. No. 8

A PICTURE WANTED.

THEY tell me you are an artist
Who can paint on the canvas white
Pictures of scenes you never saw,
In colors of shade and light.
If you can do this, good painter,
I would have you make for me,
A scene of my father's hill-farm,
Where the winds blew loud and free.

The house was large and pleasant,
Near the road tall Balsams fair,
And a Thorn Apple tree, and Locusts,
Were stirred by the balmy air.
At the corner, near the doorway,
Aglow with color bright,
Grew a bush of Honeysuckle,
With blossoms pink and white.

And close by my mother's window,
In beauty and fragrant bloom,
Stood a bush of yellow Roses,
Whose sweet breath filled the room.
And Roses red and blush and white,
And Lily bells fair to see,
With a bed of purple Pansies
I want you to paint for me.

The Cherry trees that each summer
Bore luscious fruit and sweet,
Grew south of the house, and in springtime
Cast their white bloom at our feet.
The meadows were near and the cornfield,
While the woods not far away,
Was the home of the birds whose music
We heard at the break of day.

And down past the barns, through the orchard,
And the lane, o'er the tiny brook,
Which flowed with a pleasant murmur,
My way I often took.
Down the hill and through the valley,
Where the red wild Strawberries grew,
And the Willows droop over the streamlets,
I wandered long ago.

Gathering flowers in the woodland,
Blue and white Violets rare,
And the Ferns which grew by the brookside,
And yellow Cowslips fair.
Be sure that these are pictured,
And paint them in colors bright,
That shall make the dim old forest
Seem radiant with bloom and light.

There's the house, and the road, and the Thorntree,
The Balsams and Locusts tall,
And the Roses and Honeysuckles,
Which grew by the eastern wall;
The Cherry trees and the meadows,
The cornfields and orchards old;
If you paint all these and the forest,
It will be more to me than gold.

—Park's Floral Magazine.

WHAT CONSTITUTES A GOOD QUEEN?

By Arthur C. Miller.

I HAVE often asked myself this question and I have as often tried to answer it both for myself and for others. I have tried to enumerate the virtues of good queens, but after all is said it comes to this: the good queen is the one whose colony gets the most and best honey.

In looking at the work of some of my trial stock my attention was arrested by the colony of a queen which I have called, for convenience, the Vermonter. She is an Italio-Black hybrid which my son got in Vermont in 1902. His attention was attracted by the large size of the swarm she was with and by the quantity and quality of the work the parent colony had done.

I introduced her to a small nucleus late in July. This she quickly built up into a good colony and produced about 30 pounds extracted honey from fall flowers. Wintered on summer stand and without any protection other than the thin hive, the colony came through strong and at this writing (June 18) has already yielded 30 pounds extracted honey and has two 28 pound cases of comb honey well under way. As the colony fills three shallow chambers and two supers, I looked for signs of swarming and I also wanted to save the extra queen cells. There were no external symptoms,and within all was serene. Not a queen cell or cup to be seen. Each brood chamber was packed with brood except drone comb. Such cells the queen had completely avoided, even though in several places she had laid in worker cells all around the drone cells. These latter were all varnished and ready for use. Apparently the workers wanted drones but the queen did not.

The case is interesting. The queen is in her fourth summer at least, and has once been out with a swarm and yet now when she should be declining she is keeping the equivalent of 16 L frames packed with brood and declines to raise drones. Is she a good queen? I care nothing for the markings of her bees but I do care for the stamina which she possesses. Her vigor is reproduced in her bees as is shown by the size of her colony. for it matters not how prolific a queen may be, if her bees are not long-lived the colony will not get big and stay big. According to custom the bees from this queen should be cross, but they are not. They are not angelic to be sure, but they handle well, mind their own business and hustle.

Such a strain of bees is worth having. Being a hybrid it will be difficult to foretell the qualities of queens raised from her, but vigor they doubtless will have, and that means a whole lot. I sometimes think it is being lost sight of entirely. I am constantly testing queens from different parts of the country and the virtue most often conspicuous by its absence is vigor. Queen after queen will die young and their daughters are no better. Not all purchased queens are so but their proportion is far too great for the best good of the industry.

Another colony of interest in comparison with the Vermonter is headed by a queen of the so-called leather-colored Italians. The queen is in her third summer and the colony is of apparently the same population as the other. Both have been subjected to the same treatment. This Italian stock has produced the same amount of honey as the Vermonter, but has a host of drones and are too ugly to live with. They are not content with defending their home but are out looking for trouble all the time and it is almost impossible to handle them.

Here are two apparently equal colonies doing equal work and yet one has a host of drones and the other none. Apparently the drones are no drain on the colony and yet I think that assumption is wrong. Drones feed liberally on freshly stored honey provided the cells are full enough for them to reach it, but when honey is scarce they have to rely entirely on the workers. Removal of the drones (about 3 pints)has so far failed to show any appreciable difference in honey supply.

June 18, 1904.

LATER.

Since the foregoing was written the Vermont stock has prepared to swarm. A dozen fine queen cells were completed and all the premonitory symptoms were present, when I forced the swarm and saved a few of the cells which later produced fine queens. At the time I forced the swarm there was a goodly amount of worker brood but not a single cell of drone brood in any stage could I find. The drone cells were all nicely polished but contained no eggs.

I made a very careful inspection of the bees as they passed into the hive and I found just three drones. These may have come from some other stock but I could not tell.

Here was a big thrifty colony all ready to divide itself but failing to produce any males.

The reason therefor I do not even hazard a guess at. If the workers controlled the production of males then surely they should have been present. The desire for them seems to have been present because drone cells were made ready for the queen. The ordinary need of them was there in the coming of the young queens.

To all appearance the queen was normal, laid regularly and well, was large and strong and had, during the previous season, produced drones in ordinary numbers. The queen's age may have something to do with it, but usually in a failing queen we get an excess of drones or drones to the exclusion of all others.

If the queen will deign to live a while longer I will study her and her colony most carefully.

To a limited extent this case supports my belief that aside from the queen's dependence on the workers for her food she lives and acts according to her own instincts and will (if we may use that term in connection with bees).

Providence, R. I., July 11, 1904.

The Rural Bee-Keeper for July comes to hand in a new and especially designed cover. The new journal is credit to its publishers.

HIVE VENTILATION.

By W. W. McNeal.

PERHAPS it will not be amiss to have a little talk just now upon the subject of hive ventilation. Good honey flows,good hives and good strong swarms are all very necessary to success, but the advantage thereof will be rendered futile by poor ventilation.

The heat generated by a colony of bees when storing honey rapidly often becomes intensely annoying and forces the wax-workers to seek the open air in large clusters on the front of the hive. While they are there their owner is losing good money on them just as surely as night follows the day. And that is not all; it is provocative of swarming, which causes an outlay of money for hives and fixtures that eclipses the profits that should accrue to the keeping of bees. But however necessary good ventilation may be, provision for it should always be made at the bottom of the hive and not at the top. Bees are very much indisposed to store honey close to where light and air enter the hive and for that reason all openings that admit air directly into the hive should be at the bottom. It would be better were hives so made that the greater part of the front end of the brood chamber could be thrown open during the flush of the honey season. This would enable the hive bees to stay in the supers and work at the very time they should be there.

If for any reason it is deemed advisable to give ventilation above the brood chamber, or above a queen excluding honey-board,the supers should then be made double-walled. By allowing, say, one-half inch space between the inner and outer wall an entrance may be cut through the outer wall in the middle or upper half of the super, thus permitting of fairly good ventilation without the evils arising from a direct entrance into the super. But the main source of ventilation should come from below and there should be enough of it to insure against such a disaster as the clustering of bees on the front of the hive during a good honey flow.

Now, another thing in connection with this is the manipulation of the supers. Bee-keepers have largely been instructed to place an empty super between a partly-filled one and the brood chamber, when wishing to give more room, instead of putting it on top of the one that is already on the hive. It has been claimed for this that the bees are spurred to greater activity to fill in the empty space thus made between their surplus honey and brood combs than could be achieved in any other way. But careful observation leads me to question the correctness of such manipulation. My experience has been that the farther I could draw the comb builders from the brood combs by hive manipulation the better were the results in honey secured. We all know that young bees are prone to cluster on or to keep close to the brood combs and this action seriously obstructs ventilation which in turn provokes swarming. The empty super next to the brood chamber might do all right where the hive sits in the cool shade of a tree, but when it has no further protection from the sun's rays than an ordinary shade board, I feel positively certain that better results will be obtained by putting it on top. When suitable bait combs are given, the young bees are soon impelled to go above, thus effecting a general distribution of them throughout the hive and preventing that unbearable jamming or clogging of the passage-ways in the brood chambers.

Give your bees plenty of cool, fresh air during the hot season. It is real economy to do so and any hive that does not afford good ventilation is not practical and would be dear at any price.

Can Bees Rear Drone Brood from Eggs Laid in Worker Cells.

I am not going to say that they can; neither am I going to say they cannot; but I will say that I have seen them do some things that looked very much like they were able to rear drones from fertile eggs laid in worker cells.

During the latter part of June I shook the bees of a good strong colony into an empty brood chamber, put on a queen excluding honey-board and then gave them the same extracting super that was on the old hive. The combs in the super were all nice straight worker comb and the queen had free access to them, before the change was made into the new hive. About one week later I looked into the hive and found what might be expected, that the bees had done practically nothing below but had carried their pollen and honey into the super; queen cells had been started and altogether the colony had behaved about like a queenless colony. There being no drone brood in the super and the bees feeling the need of drones, they had presumed to rear them from larvae in the worker combs. The cells were accordingly lengthened and from the size of the larvae it was evident that fertile workers were not responsible for the state of affairs, for there had not been time enough for larvae to attain that size from eggs laid by them. There was not just a few scattering cells that were thus lengthened but puite a large amount of comb was raised to accommodate the apparently changed condition of the larvae. I have witnessed the same thing many times in queenless colonies and in queenless nuclei. I know that in changing from worker to drone size of cells or vice versa, when building comb, bees will often construct cells which to the eye appear to be of worker size but in reality are a little larger. But this brood that was in the lengthened cells was not sandwiched in between drone and worker cells in the same comb, but it was in comb that was uniformly of the worker size of cell. Now gentlemen, you may draw your own conclusions, I pass it up.

Wheelersburg, O., July 11, 1904.

The Rocky Mountain Bee Journal and the Pacific States Bee Journal have been consolidated under the name of the Western Bee Journal, with P. F. Adelsbaugh at the editorial helm. The new journal is neat, spicy and instructive. It deserves success.

ORANGE BLOSSOM HONEY.

By E. B. Rood.

AMERICAN BEE-KEEPER:— I was surprised at Mr. W. S. Hart's article in the July Bee-Keeper, in which he expresses an opinion that a barrel of pure orange blossom honey was never shipped from Florida and still more surprised that the editor of the Bee-Keeper has only once in his life tasted what was "said to be pure orange-blossom honey."

My first enthusiasm for bee-keeping was aroused by A. F. Brown's (the migratory bee-keeper) success in securing orange blossom honey at Glenwood, Volusia county, Florida, in March 1894. He brought 200 colonies there just as the blossoms were opening. They had been fed up strong and immediately began to store honey quite freely. He sold us comb and extracted honey and we thought he was producing it in almost unlimited quantities. He has since told me, however, that he secured 10,000 pounds, or 50 pounds per colony. This must have been almost pure orange blossom honey, for nothing else was near that any one claims produced an appreciable amount of honey. It was before gall berry or palmetto and very little of either were within range.

I am located in the heart of the orange groves of Manatee county, and, though I have never equalled Mr. Brown's record, I get several barrels of orange blossom honey every year. Two years ago I extracted 30 pounds per colony from one apiary and this year I extracted in all about ,000 pounds, but my gall berry territory was badly burned and the saw palmetto a total failure, so I did not extract closely. It is quite true that orange blossoms are not a prolific ource of honey, but I expect a strong olony to store 25 to 50 pounds if it oes not swarm. I have shaken a ousing colony on foundation in a ten-rame hive, adding a second story of ombs a few days later and in two weeks both were full, the lower story f brood and the upper of sealed honey. And it is not uncommon to be compelled to give an eight-frame hive four stories. I regret that my unmixed orange blossom honey is all gone, but if you care for some next spring you may expect a sample of light amber honey, of good quality that will leave no "disagreeable taste lurking in your mouth."

Braidentown, Fla., July 4th, 1904.

This is very interesting, and the editor of The Bee-Keeper will greatly appreciate a sample of pure orange blossom honey. Possibly, the nature of the soil upon which the trees grow has something to do with the nectar secretion, which may account for the diversity of opinion in this regard. We requested Mr. Brown to contribute an article upon this subject for our last issue, but he declined to do so.—Editor.

ADVERTISING HONEY.

By "Swarthmore."

I WAS very much interested in Mr. W. L. Coggshell's reference to the sale of honey through an adv. placed in an Ithaca local newspaper because I had exactly the same experience, with the exception of the word "strained" which I did not use; but I did say that the product offered for sale was "guaranteed pure."

I am of the opinion that it was not the term "strained" entirely that sold Mr. Cogshell's honey, it was the publicity given to an excellent article of food which created a craving among all who read the "ad."

The most successful articles of food are those which are widely advertised. People will read what one has to say. They have no time to listen at the door. Honey judiciously advertised and properly packed would stand as good a show in the general market as any of the canned or tinned goods now carried in enormous stocks all the way down from the jobber in groceries to the smallest retailer of table goods.

As an experiment I placed a stock of extracted honey in glass with my grocer and started a series of five-line readers in my own local newspaper and it was not long before my grocer informed me that he was out of honey. Several dozens were rapidly moved by small advertising—what could be reasonably expected if effort of this kind on a larger scale should be spread over an entire country? I doubt if the demand could be supplied.

With central points to which bee-keepers of a given territory could ship their honey, with the assurance that a certain amount of cash for the shipment would be forthcoming in a stipulated length of time, stocks would be accumulated from which selections as to kinds and grades could be made for the different localities throughout the country. Each central point could determine the market for the flavors which would be most acceptable to the general palate and tin accordingly. With such conditions the producer could barrel his honey, ship quicker and sell cheaper with less labor and more profit. With a sure market of this kind output would increase rapidly.

Salesmen, of which there is an army, would show the package as they are now showing and loudly praising a certain cheap sweet, put up in nice, salable shape, which is hardly fit to eat—I have tried this stuff and am quite sure it contains glucose in more or less quantities, yet it is advertised and widely sold as something "Better than Honey."

We are slow; we are attempting to compete with twentieth century business enterprises of world-wide scope, with our one-horse wagon and a tin horn.

Brothers Selser and Muth can sell honey—Why in the world cannot we or some corporation employ a thousand such men? And help them along by wide advertising.

Swarthmore, Pa., March 11, 1904.

COMB-BUILDING IN SHALLOW AND DEEP FRAMES.

By Otto Luhdorff.

I HAVE a copy of the American Bee-Keeper of February 1904 before me and have just read an article on "Shallow or Deep Frames," by Arthur C. Miller. He says on page 30, second column: "Bee clustered in L frames start from two to five combs and they meet and extended along the whole 17 inches of the top bar before they are within an inch of the bottom bar at any point. This is two inches of lateral growth to one of vertical for one frame, but the work is progressing simultaneously in ten frames and we have an aggregate lateral growth of 170 inches to eight inches vertical, a ratio of 21 to 1."

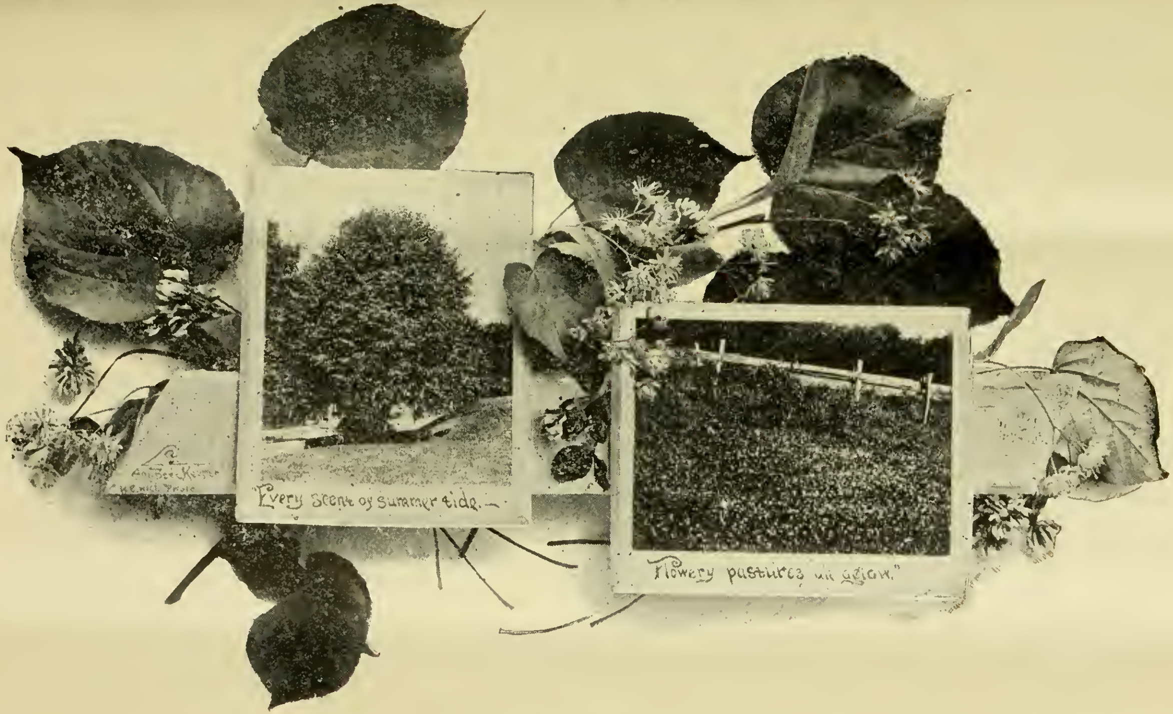
I am of the opinion that Mr. Miller is a little too fast in his conclusions. By confining bees in a certain room, they adapt themselves to this room and build accordingly. Give them a larger room without any inducement by combs, foundation or starters, so that the whole colony does not feel like being confined, and we shall very likely never see the rati of 21 to 1. My experience tells m that lateral and vertical progress i comb-building is very often about th same, if not interfered with. It i natural that the bees build combs sid by side for protection, but it is wron to consider these different combs o an aggregate basis, as one comb ha nothing to do with the other. We ma just as well put the second comb u derneath the first one, as on the sid and make our conclusions accordingly

But the proper way is to conside each comb alone for itself, and sti better, really the proof of the whol Observe the comb built in the ope air not being confined at all, and w often find the vertical growth one an one-half to two times as large as th lateral.

As far as hives are concerned f the benefit of the robber (generall the human race), there is hardly an question that the shallow hive ha great advantages against deep hiv for different reasons.

Visalia, Calif., May 1, 1904.

Mr. E. F. Atwater, Boise, Idah with one helper, runs 650 coloni and of this number about 400 are r for comb honey. We regret to lea that Mr. Atwater has recently und gone a siege of typhoid fever, whi materially interfered with his prep ration for the season's business.


Every scene of summer tide.—
"Flowery pastures all aglow."
Am. Bee Keeper
Photo

CLOVER AND BASSWOOD.

BACTERIA.

By Prof. R. M. Bundy.

MANY TIMES during the period that I have been engaged in microscopical and bacteriological work, I have felt that some little explanation, in a simple way, regarding bacteria and the many terms pertaining to them might be appreciated by at least a few interested readers.

The knowledge of germ life that is possessed by the majority of the people is the result of reading the newspapers. To those having made some study of the subject from reputable works, many of the newspaper items appear rather absurd, and are truly misleading. With the many important improvements that have been made during the last few years upon the microscope, the science of bacteriology has advanced very rapidly and is developing much information that will add to the betterment of many conditions in our everyday life.

Bacteria is the name given to a class of vegetable organisms that exist everywhere and in countless numbers. Because of their minute size they are called micro-organisms, being discernable only by aid of the highest powers of the microscope, in most instances.

The more common word "germ", meaning embryo, has come into general use because of certain forms of bacteria being the origin of disease. Bacteria are simply a class of low plants. They are the active principle in many of nature's processes and are as necessary to our life as the blood in our veins. They are the cause of putrefaction or decay of all animal and vegetable substances. They enrich the soil by a process of nitrification in a way that cannot be done by artificial means. They are the curing agents of the farmer's hay in the mow, as well as his fodder in the silo. In the dairy they are of great importance, the souring of milk being caused by the action of bacteria, converting the sugar of the milk into lactic acid. The ripening of cream and its changes into butter and the ripening of cheese are the direct results of bacteria growth. It is to their powers of producing chemical changes during their growth that they owe their importance in the world.

Bacteria are more universally prevalent in nature than any other forms of plants or the animals. They are in the air, water and soil. They also cling in vast numbers to almost every object on the earth including man and the lower animals. They do not, however, occur normally in the healthy tissues of man nor animals. Under favorable conditions bacteria grow and multiply with enormous rapidity. A single bacterium in contact with a nutritious substance, like beef gelatin will produce over fifteen million of its kind in twenty-four hours. When thus surrounded by an ample food supply of the proper kind they increase or multiply by what is known as fission or simple dividing. Each individual upon reaching a certain stage in its growth will divide in the middle into two similar halves, eacl of which immediately starts to grov and repeat the process. Some specie have been carefully watched unde the microscope during their development and have been found to divid as often as every half hour and i some cases in still less time. Notwitl standing the hundreds of differen species of bacteria there are onl three general forms—spheres, rod and spirals. Some of the spheres ar large and some small, while the rod may be long or short, thick or slende with either rounded or flat ends an the spirals may be loosely or tightl coiled. To illustrate we might sa the three forms resemble marble pieces of slate pencils and coiled wi springs. In size the spheres vary fro twelve one millionth to six one hu dred thousandths of an inch in diam ter, while the rods and spirals va in diameter from fifteen millionths one ten thousandth of an inch and length from one but little more tha their diameter to threads as long one hundredth of an inch. Bacte are usually given a generic nam based upon their appearance und the microscope and their method dividing during growth. Some of t more common names are micrococcu streptococcus, staphylococcus and sa cina, all of which are given to t spherical forms. The rod forms are all given the generic name of Bacillus and to this is usually added a specific name based upon some physiological character as bacillus typhus—those causing typhoid fever. And in much the same way the spiral forms have come to be designated as spirallum—spirallum dentinum being a form which occur in the so-called fur of the eth.

Many species of bacteria have another method of reproduction besides simple division or fission. It is by means of spores, which are usually round or oval particles of substance called bacteria protoplasm. These spores or protoplastic particles are capable of resisting conditions of heat, cold or starvation that would destroy the ordinary bacteria.

There are among bacteria two different methods of spore formation—endogenous and arthrogenous. The endogenous spores are developed inside of the rod and spiral forms of bacteria itself. They usually break out of the rods and may remain inert for a long period of time or until they come in contact with proper food materials and conditions for development when they start to grow and multiply in the ordinary way. It is to this class of bacteria that the Bacillus milli of "Black Brood" belong. Arthrogenous spores are formed by breaking up of a long rod into short segments or sections. This form will not resist adverse conditions as well as the endogenous and some authorties claim they are not true spores but are simply resting cells. Whatver the method of forming the spores ts purpose in the life of the bacterum is that of insuring a perpetuation f the species, through its increased owers of resistance. Some species f bacteria possess the power of moon to and fro in the media in which ey are growing. This motion is roduced by hair like appendages, one r more in number, which protrude rom the ends or sides of the bacterm and are called flagella. It is beeved that the flagella are develpoed rom a protoplastic film surrounding he bacterium, their distribution beg different in the different forms of cteria.

Regarding the internal structure of bacteria little is known other than that they are of very simple make-up.

Of the many hundred of different species of bacteria there are but a comparatively few that are harmful to mankind. Of this class which are the cause of disease the largest number are bacillus and are called pathogenic, while the harmless ones are called non-pathogenic. The pathogenic species are of two classes, those which are true parasites and those which are not. By true parasites we mean those which live upon and consume the tissues of the body in their growth during which time they produce poisonous substances that may prove fatal when of sufficient quantity. Under this class may be cited the Bacillus tuberculosis as a representative. The class of pathogenic bacteria which are not true parasites include those capable of living free in nature and though they develop the poisonous products during their growth in organic substances, it does no harm unless taken into the human system with the food. The poisons produced thus free in nature, ultimately become oxidized into harmless substances by their further decomposition. It will be seen therefore that only during the period between the forming of the poisons and their oxidation are they harmful. In contracting disease by inoculation with these pathogenic bacteria or germs much depends upon the physiological condition of the body at the time. If in a thoroughly vigorous state of health the tissues will be built up and the poisons eliminated before the bacteria can multiply in sufficient numbers to break down or weaken these natural forces. As before noted there are but few harmful varieties compared to the whole and it is safe to say, that of every hundred different species of bacteria as they exist, at least ninety-five are in some way beneficial to us. In preventing the growth of bacteria there is usually employed one of two forms of substances existing under three names—antiseptics, disinfectants and germicides. Antiseptics are those substances which only retard the growth of bacteria, while disinfectants are substances which actually destroy the cause of infection and are equivalent to germicides, which kill the germs. Disinfectants are usually antiseptics if used in a proper way, but the latter are not in many cases disinfectants. There is another class of chemical substances, usually strong oxidizing agents, which will convert the strongly smelling products of bacterial decomposition into inodorous ones. These are called deodorizers and may, or may not be disinfectants. It is useless to attempt to disinfect the air except in tightly closed rooms and even then to be effective it requires a quantity or strength of disinfectants in which it would be impossible for a person to live. Most of the so-called disinfectants in the market, when diffused through the air of an ordinary room have no action upon putrefactive bacteria.

Cleveland, Ohio, May 30, 1904.

NATIONAL BEE.KEEPERS' ASSOCIATION.

Los Angeles, Cal., June 18, 1904.

Editor American Bee-Keeper,

Dear Sir:—The Annual Session of the National Bee-Keepers' Association for 1904 will be held in September at St. Louis, Mo.

September 27 and 28 will be devoted to association work and its interests.

September 29th. National Day. We expect many prominent foreign bee-keepers to be present on this day.

September 30th. Inspectors' Day. Twenty bee inspectors from all over the United States and Canada are counted on to introduce and discuss, "The Diseases of Bees, etc."

Mr. N. E. France will exhibit, in the Convention Hall, a large map of the United States, Canada, Cuba and Europe. Each state and country will have a shelf attached to the map with a one pound sample of each kind of honey produced. Many other exhibits of special interests will be shown.

We expect to see the largest gathering of bee-keepers ever held in this country. A more detailed program will appear later.

Respectfully,
Geo. W. Brodbeck,
Secretary.

OUR
CORRESPONDENTS

Lawson, Mo., July 8 1904.

Editor Bee-Keeper:

Your excellent journal is sent to me as a present, by Mr. Willicutt, of Massachusetts, who subscribed three years in advance for me; and words fail to express how much I appreciate the American Bee-Keeper.

In reply to the puzzle on page 143, I should say there was something transferred to the bees while away that caused them to have a scent different from those in the hive.

Last year was my first to sell honey. One day I was going to Kansas City and I took a case with me to sell there. I called on a grocer at the corner of Tenth and Michigan. He wanted to see the honey, and when he looked at the sample he said: "Well, here are some marks on the section which show that it was put up by the bees; and besides, the combs are irregular—that shows that it is genuine."

I told him all comb honey was put up by the bees, with an air of one having a great knowledge upon the subject, for I had read in the Modern Farmer that comb honey could not be made. Said I, "You might get something in a can or jar that was no honey, but not in the comb."

"Oh," he said, "they make combs and put melted sugar in them, an sell it for honey."

"Well," said I, "I have never see any." However, he bought my honey

I intended writing to Mr. Abbott i regard to what the grocer said, bu was so busy for a long time that I forgot the matter, until I read last evening in the Bee-Keeper, page 150 where you say it cannot be made. will investigate this the little I a able, and when I learn will let yo know. I have become much interested and want to find out. I kno impure honey is sometimes put up i glass jars, for we have bought it.

Wishing yourself and your journal success, I am, Yours truly,

Miss Salena Mullin.

The prevalent idea that comb honey is manufactured had its origin in an article published in 1883 in the Popular Science Monthly, from the pen of United States Chemist Wiley. Prof. Wiley made the statement as a joke, thinking, perhaps, that his readers would know better; but the wicked canard has girded the earth. It has sped like a demon of hell to the utmost ends of the earth, poisoning the minds of humanity against one of the most delicious, dainty and wholesome articles of food with which the world has been blessed. Its baneful influence has continued for twenty years to sweep the earth, north, south, east and west, until today it is difficult to find anyone outside of the readers of of the bee journals who do not honestly believe that the beautiful, snow-white comb honey now seen in the markets is a human product. It has seemed to be a case of "truth crushed to earth" without rising, and that the "eternal years of God" have given place to this vile fabrication by which modern apiculture has been smitten to earth as often as it sought to rise. Let every apiarist put forth his strength to extricate our struggling industry from the clutches of this merciless, menacing demon, the hoary-headed Wiley lie.—Ed.

Upperco, Md., June 13, 1904.

Editor American Bee-Keeper:

I am a beginner in the bee business and have ten fairly good colonies, all in first-class hives. I am putting my whole study on the subject of bees. My aim is to keep down swarming, and increase by nuclei. I had a queer thing happen to me the last week in May. That is the commencement of our honey harvest here. I had one colony which had been out the second time. On the 28th of May it came out for the third time. In a few minutes after its arrival there were two more that came out. I had the queens all clipped so I soon caged them. I was watching them and to my surprise here all three were going in this hive which had been out the third time. I gave them two supers full of sections filled with foundation. I soon saw there were too many bees for their supers so I kept putting on supers every day or two till I got five on that one hive, or 140 one-pound sections.

Today I expect to take off one super of honey, which is already sealed. Besides, I have changed supers with comb for empty ones. What do you think of that?

I remain, yours very respectfully,

D. H. Zencker.

Knoxville, Tenn., July 7, 1904.

Editor Bee-Keeper:

In regard to the puzzle page 143 of A. B. K. there may have been some odor in the room where the supers had been that the bees contracted.

Mr. W. H. F. made a mistake in putting the supers in a dark place. The bees did not know where to go to. When a bee-escape is placed under the supers, they know that the brood nest is under and go there. But when the supers are away from the hive they go to the light and out.

Adrian Getaz.

Belmont, Ont., July 7, 1904.

Editor Bee-Keeper:

We are having rather hard times in Ontario this year, probably 70 per cent of the bees killed by winter and spring, the balance in poor shape, then short crops of clover honey. Those who have access to basswood may get a good thing from that if weather is favorable.

Yours truly, .

Morley Pettit.

Greenville, Miss., July 11,, 1904.

Editor Bee-Keeper:

Owing to a wet and cold spring the bees made but little progress until the 1st of June and little swarming until July 1st. Now they are gathering honey rapidly. Have only extracted 4,000 pounds from 220 colonies spring count. The low prices of honey are so discouraging, I would be glad to be out of the business. Have 14 one-half barrels in St. Louis for almost a year and no demand for it.

Now in regard to friend Arthur C. Miller: There is no apology necessary. He must allow for an old bee-keeper of 76 being over-sensitive as to his knowledge of apiculture. He, no doubt, has a more gentle strain of Cyprians. I have one colony of a different strain from the imported ones; though quite nervous can be handled without much trouble, as instanced a few days ago when I removed ten surplus combs of honey without a sting, when the others punished me an hour afterward severely.

I have two different strains of Carniolans, one very gentle, the other quite vicious; so we must work by selection for the most gentle. It has been a great pleasure to read the articles of Mr. Miller and he can be assured of my best wishes.

Yours truly,
O. M. Blanton.

Williamsfield, Ill., July 14, 1904.
Editor Bee-Keeper:

Spring has been very backward so that bees were slow in building up but honey flow was good. Basswood very good, white clover very good, but lasted only a few weeks and is practically all gone at this date. Sweet clover is doing well but is too scarce to give much surplus.

At present I have increased from 34 to 66 but bought two swarms. We will not get more than one-third as much honey per colony as last year, judging from present indications

Summer has been very dry so corn is pretty clean from smartweed. The last few days we have had very heavy thunder storms and heavy rain fall, which may help fall flow some. Some colonies have completed two supers, best colony has nearly completed fourth super. Poorest colony just beginning in super. Four colonies lost their queens in April and refused to rear queen from brood and were finally given ripe queen cell and reared queens but are far behind the rest. I guess it would have paid me to have doubled them up.

Yours truly,
J. E. Johnson.

Glenwood, Wis., July 15, 1904.
Dear Friend Hill:

Bees in this locality are not doing all that might be wished for. Prospects have been, and are splendid, but it rains about half of the time. I had, spring count, 58 colonies, all in best hives, etc., and have thus far increased to 120, and will increase more if possible.

Fraternally yours,
Leo F. Hanegan.

New York, N. Y., July 10, 1904.
Editor Bee-Keeper:

Puzzle on page 143: Offensive smell imparted by the brush which came in contact with the bees.

Yours truly,
Thos. Mocce.

Many of our correspondents and foreign exchanges are inclined to confuse the names of the American Bee-Keeper and the American Bee Journal. The two are entirely separate publications, having no connection whatever, and are issued from offices more than a thousand miles apart. We quite frequently receive letters addressed to the American Bee Journal, while foreign exchanges not infrequently make use of matter appearing in our columns and credit our weekly contemporary therewith.

Nomenclature.—I wonder shall we ever get done with the use of "bar frame" and "hybrid" in bee papers. One might as well talk of a vegetable cabbage as of a "bar frame", and as for "hybrid," why should the product of an Irish drone and an Italian queen be a hybrid any more than the child of a French father and a German mother? (We give it up. Ask us another. Huxley says that hybrid is " the product of different species, with sterility preventing perpetuation for over one or two generations." "Hybrid," as denoting a cross, is more common than accurate. How would "mongrel" suit you?—Ed.)—Irish Bee Journal.

American "Courtesy."—C. P. Dadant, it appears, has issued an invitation for a delegation of British bee-keepers to a convention at St. Louis. He has not thought it necessary to invite Irish bee-keepers. Mr. Dadant is Vice-President of the National B. K. A. of the United States. He ought to know better.—Irish Bee Journal.

THE
Bee-Keeping World

Staff Contributors: F. GREINER and ADRIAN GETAZ.

Contributions to this Department are solicited from all quarters of the earth.

BELGIUM.

Mr. Richards, of Amsterdam, undertook to keep one colony of bees in the city. There was no other available place but the very low attic of his house. He was compelled to place the entrance at the top. A little later he moved to the suburbs, took there his colony of bees. The entrance remained where it was—that is between the brood nest and the supers. Another colony was bought, with the entrance below as usual. The first colony, with the entrance above, gave every year during three years a large amount of surplus, once as much as five supers(about the size of the supers used by the Dadants) and never offered to swarm. The other, during these three years, gave about one super every year and swarmed in spite of all efforts to prevent it. After that Mr. Richards changed also the entrance of the second hive, and from that time, he obtained from it the same result, as he did from the first; that is no swarms and from each about 200 lbs of extracted honey every year. The only inconvenience is that the bees are unable to keep the bottom of the hive clean and it must be cleaned occasionally. A second entrance at the bottom might be put in, and opened occasionally. For the winter it might be better to close the top one and leave the lower one open to avoid loss of heat.—Revue Internationale.

In a local daily paper of Belgium, an advertisement of superior "table honey" was inserted. After a few days a bee-keeper of the neighborhood put in the same paper an ad. stating that the aforesaid "table honey" was nothing but sugar syrup, colored with something or other and flavored with a little strong dark honey. The effect was immediate. The ad. about table honey dissapeared from the paper and the stuff itself from the grocery where it had been kept.—Le Rucher Belge.

Last year(1903) The Society of Agriculture of the Province of Brandeburg in Belgium, distributed a large amount of phacelia seed to its members with a request to report. All except two reported it to be an exceptionally superior honey plant, having the additional advantage to produce nectar nearly as well during dry weather as during favorable weather. As forage, either green or dry, it is decidedly inferior and not likely to ever come into use for that purpose. All agree that the plant will grow in any kind of soil. The experiments made at the Agricol Institute of Berlin show that the phacelia does not fix the nitrogen of the air like the clovers and similar plants and therefore is not very valuable for green manuring purposes.—Le Rucher Belge.

The honey from the heath is sometimes so thick that it is almost impossible to extract it. Mr. Manfroid advises to use a kind of comb or brush with wire teeth to perforate the combs throughout so as to have the bottoms of the cells perforated. The pressure of the air on the inside of the combs helps to "push" the honey out and enables the apiarist to extract the thickest honey he may have.—Le Rucher Belge.

One winter Mr. Sior had a colony whose bees were nearly every day out, so to speak, and very often when the weather was quite unfavorable. Of course, the loss of bees was considerable and Mr. Sior saw that if the thing kept on that way, only a few bees would be left at the end of the winter. To cool them down, he uncovered the hive and poked in several handfulls of snow and closed it again. That stopped their going out so completely that Mr. Sior did not know but that the colony might have been nearly frozen. As a matter of fact, it turned out that the snow had melted and furnished the bees the water they needed, and therefore stopped their going out. Commenting on the incident, Mr. Debienne insists again on the necessity of furnishing the bees enough water and flour to take care of all the brood they may attempt to raise early in the spring. He claims that, contrary to the opinion generally admitted, the bees will sometime take flour even after the pollen has appeared in the field. He uses the best wheat flour and puts it in a comb in a sheltered place. The comb is placed horizontally and furnishes a foothold for the bees, so they do not run the risk of being "drowned" in the flour.—Le Rucher Belge.

It is often difficult to know exactly when to put on the supers. Too soon means a loss of heat and therefore a setback to the work of the colony, and too late means a loss of surpuls. Mr. Debienne puts the first super on a few days before the main honey flow comes. At the same time, he uncaps whatever old honey is in the brood nest. The bees are then forced to carry it in the super to repair the combs. That starts them at once to work in the super, rather than crowd the brood nest. Needless to say that Mr. Debienne works for extracted honey.—Le Rucher Belge.

Mr. Giot is emphatically in favor of placing the extracting combs very far apart so the bees will build them very thick. There is a saving of wax and time for the bees to cap a less number of combs. A saving of time for the apiarist in handling, uncapping and extracting a smaller number of combs for the same amount of honey. And finally the queen will never lay in such deep combs and the bees never deposit pollen in them.—Le Rucher Belge.

The process of wetting a swarm on the wing to make it settle is well known. But sometimes a swarm settles and before the apiarist can hive it, takes "french leave" and departs for the woods. To prevent any possibility of such thing occuring, Mr. Wathelet gives the settled cluster a good wetting. That keeps it quiet for a while. —Le Rucher Belge.

Mr. Decortis had a colony which refused to accept a queen. He finally smoked it with tobacco until the bees were asphyxiated (not quite dead of course), and then merely put the queen in. She was accepted.—Le Rucher Belge.

An apiarist had a colony which for four years was the best of his apiary by a long way and had never swarmed. While not exactly gentle by any means, it could be handled. The fifth year, he decided to requeen, and was surprised to find that the queen which had been so good, was very small, quite black, with short legs, but exceedingly quick. This shows that with queen bees as with many other things, appearances can not always be depended on.—Le Rucher Belge.

Another apiarist sold a swarm to a neighbor. An unusual activity was soon noticed both by the swarm and the old colony. Investigation, with the help of some flour,, soon revealed the fact that the swarm was robbing the old colony. As the old colony did not try at all to repulse the robbers, nothing could be done. These proceedings lasted eight days. Needless to say that the neighbor paid the owner of the old colony for the honey robbed, as near as they could guess at the amount.—Le Rucher Belge.

The load of nectar that a bee brings home is estimated at one twentieth of a gram (the American pound contains 452 grams). 2,000 loads or trips are therefore required to bring in 100 grams of nectar. But 100 grams of nectar contain only 40 grams of honey. If a colony gathers 10 lbs of honey a day or rather the nectar necessary to produce it, 250,000 trips will have to be made. And if the colony contains 10,000 field bees, each bee will have to make 25 trips every day. Add to that the honey consumed, the pollen and water brought in for the brood, and we may estimate that during a heavy flow, every field bee makes 30 or 40 trips every day.—Le Rucher Belge.

CHINA.

In the valley of Anning a tree known to the scientists as Ligustrum lucidum is found in abundance. In the spring the bark of the trunk and the limbs, becomes covered with excrescences about the size of a pea. Cutting these "peas" in two, shows in the interior something like flour, but which is really the eggs of the insect known as the white wax worm. These "peas" are gathered and brought to the city of Chiating. Around Chiating are immense orchards or woods planted with a kind of ash tree (Fraxinus sinensis). The "peas" are put in very small sacks and the sacks hung to the trees. The sacks are made with small holes so as to permit the insects to come out when they hatch. The females lay their eggs in the cracks of the bark. The males are provided with glands similar to those that produce the wax from the worker bees. They plaster up or rather varnish over the bark of the tree when the eggs have been laid with that varnish. This varnish is really a kind of wax quite white. To harvest it the bark covered with the wax, is raked off the trees and put in boiling water. The melted wax comes to the top.

SPAIN.

The editor of the Apiculter tells us that Langstroth Revised is now translated in Spanish and the translation will be ready next September or thereabout.

SWITZERLAND.

Mr. Kramer in order to study the working of the bees put a comb of sealed brood from an Italian colony in a colony of black bees. At detailed report of his observations is given, but is too long to insert here. It appears that the bees are about three days old when they begin to feed the queen and the brood. They make their first flight when about five days old, but do not bring in any nectar or pollen until several days older. In concluding his communication, he insists that the condition as to flow of nectar, abundance of stores, amount of brood, etc., have a considerable influence on the working of the bees. If necessary quite old bees can take care of the brood and quite young bees will go to the field rather than starve.—Le Rucher Belge.

An apiculturist of Switzerland put a comb of eggs and young brood into a queenless colony, twenty queen-cells were built. Of the 14 cells, two failed. Among the 12 queens obtained, nine were large, and three small, or rather smaller than the other, six were almost black, four more yellow and two well marked. These two last were among the largest. Right here, is an important lesson. In our text books and bee-papers the advice is often given, in order to prevent second swarms, to destroy all the queen cells but one. But as we see by the above, the one cell left may fail, or give an inferior queen. Why not cage the last cells and select the queen after the hatching?—Le Rucher Belge.

It seems to be the aim of the bee-keeping fraternity in Switzerland to not only keep the native brown bee in its purity but to improve the race by selection. I think I have reported before that stations have been established for the purpose of mating queen bees. Here selected colonies are kept to furnish highbred drones, and keepers may send nuclei colonies with virgin queens to their stations and when queens are mated have them returned. This would be pretty expensive business here in America on account of exorbitant express rates and long distances. In Switzerland neither cut a large figure, and bee-keepers avail themselves of the opportunity. In selecting breeding stock the motto is: "Only the best is good enough." For several successive years a breeding colony must have distinguished itself by constancy, character, energy, and longevity. Here is an idea, I had not thought of, but one of the tests of longevity is, a colony with but seven (7) broodframes must be able to populate a large hive.

GERMANY.

Broermann writes in Bwsch. Zentralblatt of how he prevented swarming during the buckwheat season. He had discovered that a large portion of his prime-swarms as well as the mother colonies again made preparations for swarming. After turning his hives bottom side up and leaving them thus for eight days swarming was given up by his bees.

(The same thing has been tried here when reversible frames and hives had their time, but if I remember right did not prove altogether a success).

According to the Phalz Bztg. Distler has succeeded in producing a none-swarming strain of bees. Two years ago he received from his 30 colonies only two swarms which were lead by virgin queens; last year his bees cast no swarms at all.

New and better hives are being invented all the time. Hartmann has invented the "ne plus ultra," by means of which the yield may be quadrupled. I will not tax the reader by a description, for the Hartmann hive is not universally accepted as anything better than we had before.

ARABIA.

The Arabs are quite fond of honey. They consume it in its raw state, as an ingredient in cake and in drink. It does not require very much space for a large apiary as the hives are corded up in two rows closely together on the ground. They represent the shape of pieces of logs, about eight inches in diameter and from three to four feet in length. A covering of grass gives them protection from the sun and wind Different materials are used to construct these hives. Some are made of the cork oak, some are made of willow whisps braided together like basket work; some are made of clay. Each end of the hives is closed with a round piece of bark. When honey is wanted the hive is opened from the back end and the honey is cut out.

At weddings and religious feasts honey is seldom lacking. A common practice is to take butter and honey and knead it till it becomes a sort of homogeneous mass. A dish of it is placed on the middle of the table and all sop their bread in it. A drink is made of honey, water and lemon juice; but whether this is allowed to ferment or not the Leipz. Bienenztg. does not say. The Arabs do not protect themselves with bee hats and they wear no pantaloons, but they smudge their bees to subdue them.

AUSTRIA.

To make butter more palatable and at the same time increase the keeping qualities Jung-Places advocates in Deutsche Imker to add a little honey to the butter when making it; about one ounce of honey to a pound of butter. This is not entirely new, but good and bears repeating.

ANTS AND BEES.

Our mild Southland is favorable to the rapid increase of these two most interesting insect industrialists, the one everywhere a pest, the other the most effective sweetener on earth and no mean money raiser. It is as the former interferes with the legitimate business enterprise of the latter that the bee farmer desires to enter his vigorous protests.

Louisiana and Texas are not so sorely troubled with ant depredations as is Florida, where the large red robber is a terror, but the sum total of the damage done is not inconsiderable. The amount of honey pilfered is far from the most serious factor. The excitement in the hives consequent upon the visits of these thieves and the loss of time and energy used in largely unavailing chasings count heavily upon the labors of the colony.

The writer uses with best effect stands having feet of half-inch iron, eight or ten inches in length, set into tin cans, or, better, heavy boarding house cups. These cups should frequently be filled with water, floating a few drops of oil. A twelve or sixteen foot stand requires six or seven of these feet.

To make the stand take two 2x4's of the required length and securely nail 1x4 pieces 20 inches long into the ends and similar pieces six or eight feet apart on what will be the lower side of the stand. Near the ends bore four half-inch holes to within a half inch through and also one in the middle of each long piece or one in the middle of the back and two at thirds in the front. Into these drive eight or ten-inch bolts or have a smith cut a half-inch bar into these lengths and drive them. Invert the stand and set into cups as directed. Each cup should stand on a brick. The hives may stand within a few inches of each other on this stand, preferably alternately facing in opposite directions.

The great Louisiana-Texas oil fields may help us to fight ants. The writer plans to try crude oil on a small scale. He will raise a ridge several inches high for good drainage. This and an adjacent strip for some feet he will thoroughly saturate, destroying all ants within that belt and largely or entirely keeping others from approaching.—Rice Journal and Gulf Coast Farmer.

THE AMERICAN BEE-KEEPER

PUBLISHED MONTHLY.
THE W. T. FALCONER MANFG. Co.
PROPRIETORS.
H. E. HILL, - EDITOR,
FORT PIERCE, FLA

Terms.

Fifty cents a year in advance; 2 copies 85 cents; 3 copies $1.20; all to be sent to one postoffice.

Postage prepaid in the United States and Canada; 10 cents extra to all countries in the postal union, and 20 cents extra to all other countries.

Advertising Rates.

Fifteen cents per line, 9 words; $2.00 per inch. Five per cent. discount for two insertions; seven per cent. for three insertions; twenty per cent. for twelve insertions.

Advertisements must be received on or before the 15th of each month to insure insertion in the month following.

Matters relating in any way to business should invariably be addressed to

THE AMERICAN BEE-KEEPER,
Falconer, N. Y.

Articles for publication or letters exclusively for the editorial department may be addressed to
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Fort Pierce, Fla.

Subscribers receiving their paper in blue wrapper will know that their subscription expires with this number. We hope that you will not delay favoring us with a renewal.

A red wrapper on your paper indicates that you owe for your subscription. Please give the matter your earliest attention.

The theory that the secretion of an excess of chyle is responsible for the disease, bee-paralysis, as set forth by a contributor to Gleanings some months ago, is receiving all kinds of swats and knockout blows from the shoulder through the Australian press.

Swarthmore queen rearing appliances received first prize at the British Royal Show in London, June 25 to 30. Bees exhibited by Messrs. James Lee & Son, which also secured first prize, were from Swarthmore stock. Another feather in the cap of American beedom.

The Ladies' Home Journal, which took occasion to brush up and again roll the old Wiley "chestnut" about manufacturing comb honey, in its June issue, has been gaining a little reputation for careless statements otherwise. In its May issue it purported to enlighten its readers in regard to the injurious ingredients of certain patent medicines on the market. Dr. R. V. Pierce promptly instituted suit against the publishers, with a result that the offending Journal takes it all back and apologizes most humbly. Bee-Keepers would be grateful for so wholesome an apology for the injustice it has done to them.

"Hitter" a regular contributor of first class material to the columns of the Australasian Bee-Keeper, protests against the classing of the dark varieties of honey as a low-grade product simply because of its darker color; and calls attention to the fact that honey is not necessarily less palatable nor less wholesome because it is not white. He thinks the public should be educated to an appreciation of the fact that color is not an index of quality. There is much sound sense in the suggestion. Jellies and jams made from the darker varieties of plums or grapes are not regarded as inferior to those made from the lighter-colored fruits, nor sold at a lower price.

Our thanks are due Secretary James A. Stone for a copy of the Third Annual Report of the Illinois State Bee-Keepers' Association. The report comprises 163 pages of solid matter, presenting the constitution, by-laws, membership list and a copy of the law which gives the association an appropriation for $2,000 from the State.

At the convention of the Illinois State Bee-Keepers at Chicago last December, Fred W. Muth, president of the Fred W. Muth, Company, of Cincinnati, who, by the way, knows a few things about honey himself, asserts the belief that Frank Rauchfuss, manager of the Colorado Honey Producers' Association, is the best-posted honey-man in the world. This is rather an enviable distinction, and it is interesting to know who is really "it." By the way, Mr. Rauchfuss is the American Bee-Keeper's Colorado agent, while Mr. Muth represents us in Ohio and adjacent territory. The Bee-Keeper is proud of these representatives.

OBSERVATION HIVES.

As a result of some correspondence with our readers in regard to observation hives we reproduce in this number a photograph of one which occupied a place at the dining room window of the writer's home for several years.

The hive was constructed to take Quinby frames, of which it accomodated eight to the story. It is rather a matter of regret at this time that the hive should not have been photographed in its usual position at the window; but in order to include as much as we thought necessary at the time upon the photographic plate, the hive was moved back from the camera. It does not, therefore, give an idea as to the arrangement which permitted the bees to enter and escape, which was as follows:

Placed with the floor-board on a level with the window sill, and snugly against it, the space between the window and the entrance was covered with a thin piece of board to which had been attached at each end a half inch strip. Thus, when the lower sash had been lifted and blocked up even with the surface of the thin board, it will be understood that a passage-way was provided from the hive to the open air. Openings at sides of entrance, below sash were then closed with strips of wood.

The hive body was constructed by simply substituting for the side-boards two frames made of picture frame mouldings, the rabbets of which had been reduced by ripping to the thickness of a double strength glass. These were screwed to regular hive-ends, and the whole secured to an ordinary bottom, or floor board, around which was mitered another strip of gilt moulding to give a finished appearance to the job. The ends and flat lid were then finished and grained in imitation of oak.

When a second story became necescary,frames fitted also with glass were used for ends as well as the sides thereof. Later a large hole was cut through the flat lid and over it was placed an inverted glass globe, which had formerly been used for exhibiting confectionery or something of that kind; and it served to impart the effect of a crystal dome which, when filled with white comb honey was really the most beautiful part of the contrivance, which altogether was quite elaborate and attractive. We regret now that a photopraph of the hive was not taken at this latter stage.

If nothing more, the possession of this hive, containing a strong colony of bees for several years, proved the fallacy of the popular belief that bees are reluctant to store honey where it is light, for, when crowded for room, and in the glass dome, cells, half of which the exposed glass really formed, were readily used for storing honey as were any others.

For several years this colony was one of the best in the apiary, and it wintered perfectly in a room which was kept, by means of natural gas fuel, at the most comfortable temperature for the family.

CUBAN COMPETITION.

Someone asked W. L. Coggshall why he located so many bees in Cuba. Foreseeing the condition which is now upon us, and destined to become worse, Mr. Coggshall replied: "I wanted to be on the other side of the fence when the rabbit got out." According to information from our readers who have large crops to market, the "rabbit" is out now. One correspondent recently wrote that he produced this season something over 200 32-gallon barrels of extracted honey. But, like Dr. Blanton, he finds the market has gone to smash; and a trip to New York, a distance of over 1,000 miles, elicited no other satisfaction than hearing long and strong Cuban honey talk on all sides. The largest buyer in the City was, in fact, then in Cuba investigating the honey situation. It becomes daily more evident that The Bee-Keeper was a prophet when it warned producers of the seriousness of the West Indian problem. Mr. Morrison's idea, and that of some of our contemporaries that the American producer has nothing to fear from this source, is even at this early date becoming buried beneath a burden of actual conditions that are drepressing in the extreme. With Cuba blocking the seaboard markets and Mexico coming in on both

"How Doth the little
BUSY BEE"
PROGRESSIVE BEE-KEEPER

sides, it is time the American producer did a little thinking, even though he may "fear" nothing.

"KARO KORN" VS. THE REAL THING.

Mr. Morley Pettit, one of Canada's rising apiarists, recently wrote: "I wrote the S. S. Times Co. mildly protesting against advertising Karo Corn syrup as better than honey. I enclose Mr. Howard's reply. You can take the matter up as you see fit."

Following is the reply of the publisher of the Sunday School Times to Mr. Pettit's "protest:"

Dear Sir:

"Your letter of June 27 has been received. I am not sure that there would be entire agreement among experts as to your suggestion that honey is Nature's purest and most wholesome sweet.

"Reference to Gleamings in Bee Culture of May 15, June 15 and Aug. 1, 1903 and to the American Bee-Keeper of March, June, July and November 1903 furnish enough facts about honey to lead one to ask if after all Karo Corn Syrup is not a safer article of food.

"It is our purpose to have only reliable advertisements in The Sunday School Times but I do not see any reason for insisting that the advertiser should change the word 'better' in the advertisement to which you refer.

"Cordially yours,
"Philip E. Howard."

Though Mr. Pettit's ambition is eminently commendable, it is, obviously, useless to ask publishers to turn down profitable advertising contracts upon the mere assertion of a competing industry that the wares of its competitor are inferior. Notwithstanding the fact that bee-keepers are sincere in the belief that "honey is Nature's purest and most wholesome sweet," as suggested by Mr. Howard, it is not improbable that experts might materially disgrace in regard to some minor points which a thorough, scientific investigation would involve. It seems that everyone should know by this time, however, that glucose is not a wholesome food, owing to the acid contained and which, it appears, it is impossible to eliminate during the process of manufacture. As seen from our view-point, but one means of relief presents itself to the honey producer, and that is the adoption of modern business methods and a thorough campaign of education among the masses.

ANOTHER BEE—KEEPERS' SOCIETY.

We have received a copy of the constitution and by-laws of theSouthwestern Ohio and Hamilton County Bee-Keeper's Association, an organization incorporated under the laws of the State of Ohio, June 14, 1904, also a report of its regular meeting, which was held June 17, from Mr. Henry Reddert, the secretary.

The object of the new organization, as set forth in its constitution, is: "The promotion of apiculture in all its branches."

Hamilton county, we have understood, already has a most prosperous and promising association, with a no less worthy object, and we are somewhat puzzled to know why two beekeepers societies should spring up in the same county within less than two years. The information as to the more recent organization, however, comes to hand too late to investigate for this number of The Bee-Keeper.

As the membership was not limited in the original association, it cannot be that a new society was necessary in order to meet an overwhelming number of applications for admission; and the problem becomes more and more complex.

Without inside information, as to the actuating motives, we strongly incline to a belief that a serious error has been committed somewhere, as the need of a second association in the territory already covered is not apparent. One strong association is worth a dozen tottering concerns, none of which can hope for a membership list sufficiently strong to command either recognition or respect.

"PAT" STILL IN CUBA.

The surprise of the season comes on two postal cards from Cuba, dated July 10, and signed, "Pat." By way of introduction our long-lost friend says: "La casa es que tiene pocos las ebejas y ano 1903 estaba mal, y el punto tambien not extra fine." Continuing his mixture of Spanish, Russian and English Pat advises, on postal card No. 2 that he has taken in all since he arrived in Cuba about 90 fifty-gallon barrells of extracted honey; 2,500 pounds of comb honey and 700 pounds of wax.

Pat says, "Tengo ahora mucho trabajo" (I have now much work), in preparing 744 colonies for another move—35 kilometers by stone road, 12 by train and one and a half kilometers by dirt road, and concludes: "I moved bees here two times already, and now getting ready for another move."

If ambition and hard work will win out, Pat's success is assured. Seven hundred and forty-four colonies is an encouraging start.

REGARDING THE DEACON.

In a letter from Mr. H. J. Gardiner, dated at Christchurch, New Zealand, Feb. 22, and returned to the writer on account of insufficient address and remailed in New Zealand to the editor of The Bee-Keeper June 9, Mr. Gardiner says:

"Give my love to the Deacon: I like this series of letters very much and they are always welcome."

By this time Mr. Gardiner knows something of the difficulties under which we are laboring to secure a continuation of the Hardscrabble letters for our readers.

We have, we are pleased to say, been able to get several incoherent missives, as well as some unsatisfactory photographs; but our medium advises us that he is now working on new lines and that within a few days he expects to have a very complete message from the Deacon. We therefore believe we shall be able to present next month the new illustrated series of Hardscrabble letters.

Though rather too indistinct for reproduction in halftone, some of the photographs secured are quite interesting, and we shall have cuts made for next issue of some of these in the event of our inability to get something stronger. Meantime, our readers will please not become nervous over the matter, nor take things too seriously.

THE EDITORIAL SHEARS.

In The Bee-Keeper for July was published an article of exceptional merit from the Florida Farmer and Fruit Grower, entitled, "Let the Honey Get Ripe." It is so rarely that one finds such reliable matter pertaining o apiculture in the agricultural press hat we sought to encourage the evident talent by reproducing with favorble comment the entire 'editorial." Our attention has since been called to the fact that the Florida Farmer and Fruit Grower had absolutely nothing to do with originating this matter, which it published as original stuff. It is a verbatim reproduction of an editorial which appeared several months ago in the American Bee Journal, of Chicago. Whether the Florida Farmer and Fruit Grower stole the article from the Bee Journal, or not, we do not know; but it must have been aware of the fact that it was using reprint and not original matter—and using it without credit. If an agricultural periodical is too poor to employ competent talent to edit its various departments it should be honorable enough to give due credit to those upon whom it has to depend for its supply. "Faking" matter in this way is one of the most contemptible tricks of which any office can be guilty; and if the general public is not aware of its thieving propensities its contemporaries are, and pity its vain ambition.

Once more the editor begs to kindly and earnestly request his readers to send all remittances and letters pertaining to business matters to the Falconer, N. Y. office, and not to Florida. Your careful attention to and compliance with this request will greatly facilitate our work. Requests for sample copies or reports of non-receipt of The Bee-Keeper by subscribers may be sent to the editorial office, Fort Pierce, Fla. All articles intended for publication should also be sent direct to the editor; but all else should invariably be addressed to the business office, as stated—at Falconer, N. Y.

Bees.

A writer, from Portland, Oregon, sends to the Indiana Farmer an account of his experience with bees in that western country.

A friend, losing his health, was advised to change his locality. He settled in the hill country of our Oregon coast, and started with a few swarms of bees.

Instead of selling his honey at first, he made it his staple diet, and entirely recovered his lost digestive powers. Gradually adding to his stock, together with the knowledge of manipulating it, he has become the "bee-master" for the whole country side, adding thus to the good income made from his bee-produce. At the same time his occupation never becomes stale and flat; his interest in the wonderful little creatures never abating, while he keeps on learning more about bees and their ways. For years I took the same pleasure in bee-keeping, and but for altered circumstances and surroundings, would do so still.

In my childhood the old country superstitions of Devonshire amused me. The bee-master would arrive, making a great racket with pots and pans to mesmerize his bees. He would not allow us to purchase any, (with money) as being unlucky. He installed a new swarm with incantations, insisting on one of the family repeating the name of all the rest to them, "Or else," he explained, "It's in high dudgeon, that they'll leave ye!" They were to be informed too of a wedding or a death, or "there never be no luck about the house!"

The colony looked very picturesque each on its own stand in straw "keps," and straw thatch over them surmounted with a top-knot.

Some years later we had Sir John Lubbock for a neighbor. He was living at the time on familiar terms with the bees, a glass window from their hive being right in his study, where his scientific observations were made. It was then that our gardener always kept a hive in his forcing houses for apricots, nectarines and peaches. "It saves me a sight o' time and trouble!" he would say, "for it's the bees what does my fertilization for me. I don't 'ave to bother with fiddling little camel hair brushes!" Yet for fear they should not get enough for their bee-bread, I used to put out peaflour for their use; and it always managed to disappear.

In the early days of our Oregon ranch, we had an Englishman with us who had a regular bee mania. He was too scientific to be practical, and the queens from Palentine, Cyprus, and Italy ate up the profits that we should have made. The bee experiences that he poured into my delighted ears from time to time were most entertainng as well as startling. I studied my "Root" and took the greatest interest in the wonderful little sprites. After he had left us, and during the renting of our beloved ranch, the foreign treasures went off on their aerial honey moon with "burnt wood" scrubs obedient to "the call of the wild!" Our sons are now forever coming upon wild bee-trees in snug canyons or on the open hill side, of evident mixed breed.

One can always get a pleasure out of bees, realizing what others have witnessed, viz., the order of the little community; the regulated activities—even to the watchman, and the hot-weather gate fanner,—the indefatigable nurses, the makers of the secret "royal jelly' for the embryo queens; the carrying off dead bodies to "without the camp" and many other wonders!

And yet the bees are said to work only four hours a day, and live only six weeks. Clever as they are, a good bee keeper knows how to deceive and circumvent them when necessary, keeping them under his scientific control.

In proportion to time wisely spent on them, more financial profit can, I think, be made on most things. Of course knowledge and facility in handling them is needed; the locality being adapted to their supplies, and the climate to their constitutions! With us, they work first on the vine maple, then on orchard and wild bloom. Later on the much abused fox glove takes their fancy, and white clover first and last and all the time. Buckwheat makes a good special crop as we shall not be likely to take them punting up and down stream, as did the Setotch folk, in search of pastures new. Until he has become "immune" the bee-keeper must have ammonia handy in case of stings, for, as the Chinaman says, "'Melican butterfly, him bad! Him prick heap hard."

Editor R. L. Pender, of the Australasian Bee-Keeper, West Maitland, N. S. W., is now in America and recently paid our business office a short visit.

Bees Killed Horses.

Mishawaka, Ind., July 19.—A team of horses belonging to H. W. Grant, a rural mail carrier, were stung to death yesterday by a swarm of bees. The horses, while grazing overturned a beehive. The honey gatherers attacked the horses and stung them until they both dropped dead.

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HONEY AND BEESWAX MARKET.

Hamburg, Germany, June 15—The tendency of the honey market is still downward, contrary to expectation. The reports from Cuba and California hardly justify it. California white, 7.63 per 50 kilogram; light amber, 6.80. For baking, yellow Cuba honey is preferred. For table use, the fancy white has the preference. Cuba yellow, 3.71 per 100 lbs.; fancy white, in squre tin cans, 4.77 per case. Demand not till fall and prices will vary or change, according to supply and demand.
L. Gabain.

Kansas City, Mo., July 8—We have received a few shipments of new comb honey from the West and find the demand equal to the supply. We quote: Fancy white, 24 section cases, $2.85 to $3.00, No. 1 white, 24 section cases, $2.75. There is scarcely any demand for extracted at present; market 5 1-2 to 6 cents for white stock. Beeswax per lb. 30 cents.
C. C. Clemons & Co,

Chicago, July 7—There is a plentiful supply of honey of all kinds on the market, with no sales being made; prices therefore cannot be more than on an asking basis. Very little, if any, choice to fancy comb, but a large amount of what would average No. 1 is offered at 10c to 12c, no sale for off grades or damaged lots. Extracted White, 6 to 7c, ambers, 5 to 6c. Beeswax, 28c to 30c.
R. A. Burnett & Co.,
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Boston, July 8—Our market on honey, both comb and extracted, is practically in a slumbering condition as there is really no call whatever. Prices remain as before quoted, but are really only nominal.
Blake, Scott & Lee.

Denver, Colo., June 11.—The supply of extracted honey is plentiful, with slow demand. We quote today as follows: No. 1 white, per case of 24 sections, $2.75. Extracted, in a local way, 7 to 7½ cents. Beeswax, 22 to 28 cents. Arrival of small fruits has depressing effect on honey market. We are cleared up on comb honey.
Colorado Honey Producers' Assn.,
1440 Market Street.

Matanzas, Cuba, May 26.—Old crop is about all sold. Last sales were at 26 cents a gallon; one cent additional for each gallon in casks. Beeswax is quoted at $31.25, Spanish gold, per wt.
Juan Landeta.

Cincinnati, Ohio, June 15.—The demand for honey is slow for this season of the year, which is due to the vast quantities that were held over from last season, and the importation of Cuban honey. We quote amber, in barrels and cans, at 5¼ to 6½ cents. White clover, 6½ to 8 cents. Beeswax, 30 cents.
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Dublin, Ireland, June 8.—Old crop all cleared up. No new stock offering yet.
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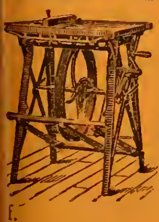

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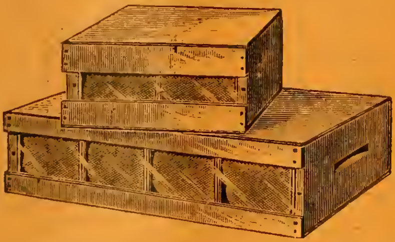

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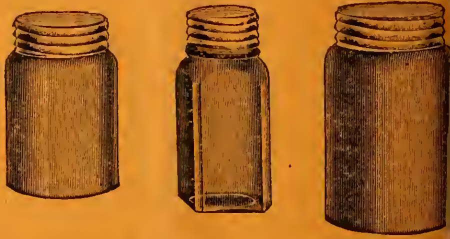

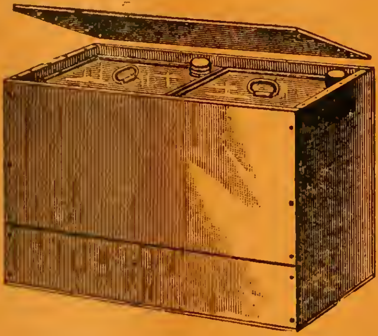

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VOL. XIV

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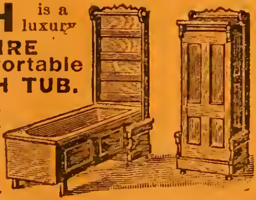

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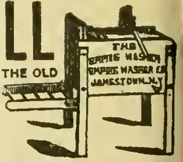

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THE AMERICAN BEE-KEEPER

Vol. XIV SEPTEMBER, 1904. No. 9

"COUNTRIFIED."

By James Buckham.

Do they call you "countrified?"
Let it be your joy and pride.
You, who love the birds and bees,
And the whispers of the trees!
Trust me, friends of flowers and grass
Little brown-faced lad or lass,
Naught in all the world beside
Equals being "countrified."

Up, of mornings, when the light
Reddens on the mountain height;
Hearing how the bird-throats swell
With the joy they cannot tell;
Conscious that the morning sings,
Like a harp with unseen strings,
Over which the breezes glide—
This is being "countrified."

Roaming far, on summer days,
Or when autumn woodlands blaze;
Learning how to catch and tell
Nature's precious secret well;
Filled with sunshine, heart and face,
Or, where branches interlace,
Dappled like the shy trout's side—
This is being "countrified."

What though little fit to pose
In the city's ways and clothes?
There is vastly more to love
In the brawn of nature's glove,
Health and happiness and tan
Are best fashions for a man.
All who near to God abide
Are in some way "countrified."

MIGRATORY BEE-KEEPING IN FLORIDA.

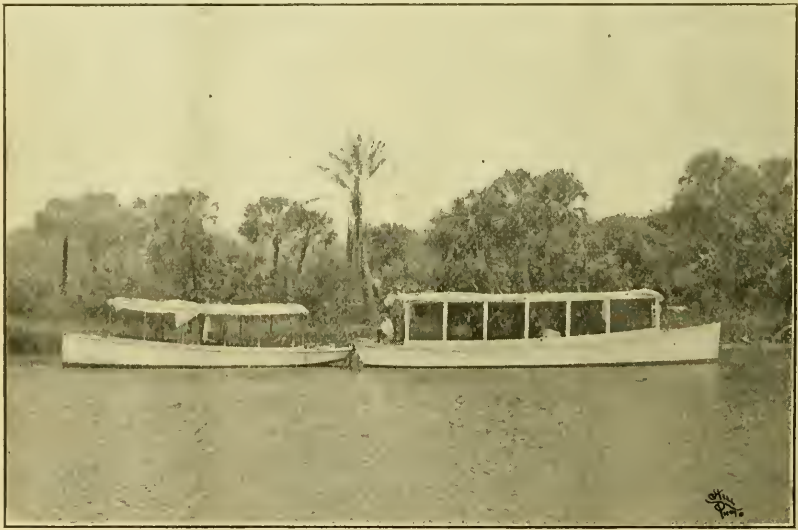
BY O. O. POPPLETON.

THERE has always been a peculiar fascination in the subject of migratory bee-keeping, especially when practiced on our river highways by the use of boats.

I suppose that real migratory bee-keeping on the water means the keeping of bees on large flats, scows or boats which are frequently moved from one locality to another so as to take advantage of different honey flows as they occur in different but not too distant localities. The only instance I know of this having been tried on a large scale in this country was a costly failure. I doubt whether conditions in this country will ever allow of its being done successfully.

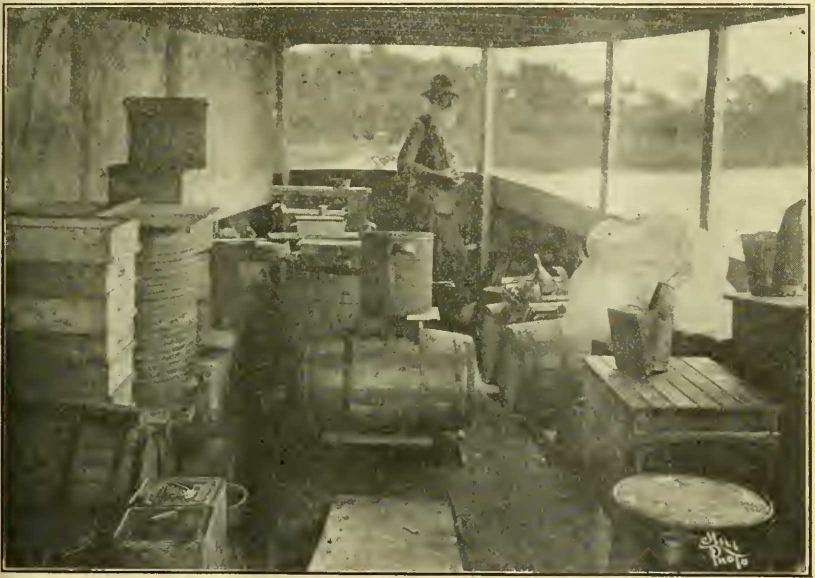
There are localities, however, where a modified form of migratory bee-keeping can be practiced, and I happen to be lucky or unlucky, enough to be so located that I have to practice it to attain even medium success in my work. While a brief description of some of the conditions,etc., connected with this work cannot be of much value to the fraternity, it may possibly interest some.

Black mangrove is a semi-tropical tree occurring in salt marshes, in close proximity to the ocean itself. There are three localities in East Florida where it grows in sufficient quantity to be of value to bee-keepers. One is near New Smyrna and Hawks Park, in Volusia county, another is some 50 to 100 miles southward in the Indian River Narrows, in Brevard county, and the other is on the keys south of Miami in Dade and Monroe counties.



POPPLETON'S FLEET AT THE LANDING.

Along almost the entire east coast of Florida extend estuaries or salt-water lagoons, and the mangrove is mostly found on marshy islands in these waters. In many cases, especially at the New Smyrna field, the water is narrow enough between the islands and the mainland so that bees on the mainland have ready access to them; but in much of the other locations, the water is so wide that bees have to be located on the islands while mangrove is in bloom. As a rule the islands are not as good locations at other seasons as is the mainland and the best way of utilizing the honey resources of the mangrove is to keep bees on the mainland most of the year, and move them to the mangrove locations while that is in bloom in June and July. If the good locations on the mainland were in all cases close by the mangrove locations, the moving of bees to and from same would be a small item, but such is not always the case. My own home apiaries are about 110 miles by water from the nearest fair mangrove location and the removal of 200 or more colonies becomes a costly and laborious job.



INTERIOR OF EXTRACTING BOAT AND TRANSPORT..

When I first commenced keeping bees here in Florida, the mangrove location at Hawks Park was so much better than the one I am now using that although much farther away (150 miles) I moved my bees there each season. Two of us bee-keepers united in hiring a small steamer to tow our bees on a large lighter at an expense of $1.00 to $1.50 per colony up and back. This paid us fairly well until the freeze of 1895 ruined the mangrove there. Since then I have each summer moved my bees to a location about 40 miles from home. This location is not so extensive nor does it yield as large quantities of honey as did the old place.

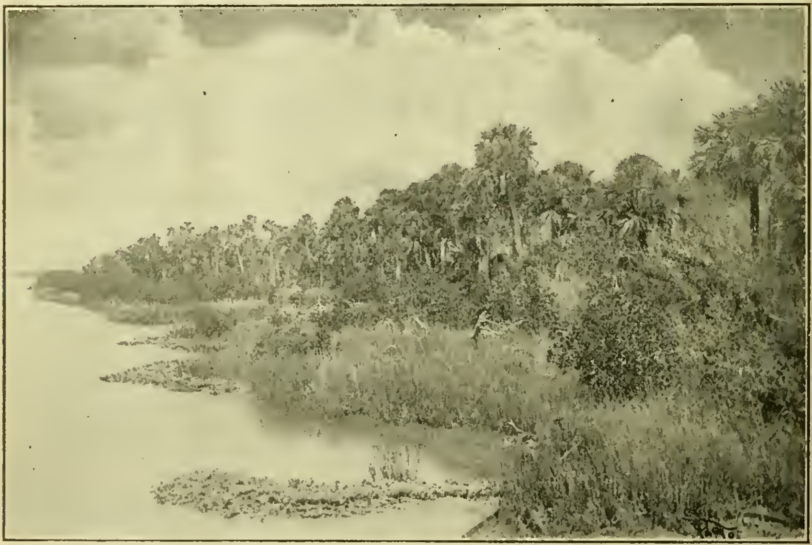
For the first two or three years I used sailboats to move with, since then until this year have carried the bees in my gasoline launch, a boat capable of carrying about 30 of my large single-story hives. This year I have built a large boat capable of carrying nearly or quite 125 of my large hives —would carry easily some 300 single-story Langstroth hives. This boat is all covered in with good roof and canvas sides. Sides can be fastened down or rolled up as seen in the first picture. This boat is used for carrying bees, being towed with the launch, after which it is tied to the wharf and used as an extracting and storage room until ready to carry bees back home; then taken out of the water and used as a storage house until next bee season. I expect to use it then as a movable extracting room, my out apiaries being all situated on the banks of the river, none of the colonies being over 50 yards from where the boat will lie. Honey is all wheeled into the boat on a wheelbarrow in comb-boxes. The barrow stands just back of the decapper and extractor and equi-distant from either, in the handiest position possible for handling combs to and from these implements.

The photo showing the interior of the boat was taken after extracting for the season was over and boat was well littered up with some refuse truck from an old apiary I had lately bought, and had partly broken up after honey flow was over. The editor was quite disappointed that he couldn't get over to take the pictures while we were at work and deck properly cleared for action.

Now does all this labor and expense of moving bees, as I do, pay? In my situation, yes! But I know of no other location in Florida or elsewhere where it will pay and if I had a location to choose over again, I should certainly try hard to find one that had no migratory features about it.

Perhaps a little explanation of the engravings will be in order: The first one shows the two boats as they lay days which we are at work extracting. The larger one is the lighter and work-room combined, which is left moored at the wharf during the honey season. The smaller one is the launch fitted with a three horse-power Globe gasoline engine and used for going back and forth from apiaries to living place, towing the other boat or any other use a power boat can be used for. The bees, about 150 colonies at this place, are on a narrow shell ridge parallel with the shore behind a low fringe of bushes that almost entirely hides them. As the editor said, the apiary is by far the best arranged one he ever saw to prevent a photographer from getting any view of it. The large tree in the middle of the picture is a date palm, one of the oldest if not the oldest one in this region.

The third picture is a view of the shore above the landing, taken from top of the big boat. It shows a fine lot of our cabbage palmetto trees on the shore, also several oyster bars out of the water at the time, it being low tide We can gather all the oysters we wish within a few feet of the boat on the shore side and catch fish from the other side, there being a fine fishing hole within 10 or 15 feet of the boat


OYSTER BARS AND SHORE—LOOKING NORTHWEST,

While my partial migratory bee-keeping makes plenty of hard work with no great remuneration for it, yet there is something fascinating about the life in such a wild and out-of-the-way locality. This apiary is over two miles from the nearest house, about 200 yards from the ocean beach, and near an inlet. The waters abound in many and curious kinds of life. I have seen during the present summer a manatee of at least 1,000 pounds weight; a sawfish 15 feet long; sharks from 10 feet down, scores of sting-rays from 10 to 100 pounds each; sea turtles from 10 to 300 pounds each, thousands of large fish and innumerable quantities of other things found only near tidewater inlets.

Several times during the summer personal friends living in town have frequently gone over to the apiary in the morning and occupied their time during the day, while I was at my regular work, in fishing, bathing in the surf, shell gathering, etc.

Fort Pierce, Fla., Aug. 11, 1904.

THE SHALLOW vs. DEEP FRAME CONTROVERSY.

A Reply to Mr. Miller.

By W. W. McNeal.

MR. ARTHUR C. MILLER, in his defense of the divisible brood-chamber, Page 30, Bee-Keeper or February, writes enthusiastically if not convincingly of the merits of the ittle hive.

Shallow hives were a great fad with ne at one time, and therefore it was with much interest I read the article of so able a writer as Mr. Miller, rather hoping that he would disclose cer-ain practical truths which would enable me to "revise my theories" conscientiously. But it seems he has ather substantiated the correctness of my claim—that hives shallower than he Langstroth do not properly meet he requirements of a colony of bees during the cold of winter and early pring. Those conditions that favor best the welfare of the bees do not erve the interest of the bee-keeper so well. Either one or the other must be he loser and usually it is the bees.

Man's own convenience has gradually encroached upon that of the bees till n the construction of the modern shallow hive, Mr. Miller tells us it was de-igned for "man's especial benefit!" Now that being so, there remains but ttle ground for discussion, for I have ever said the hive was not a good warm-weather hive—one that strongly ppeals to the avaricious qualities in uman nature. The "personal element" or in other words "the man and management" may either modify or intensify unfavorable conditions arising from unnatural surroundings. But hive manipulation, however systematic it may be with shallow hives, cannot make those hives as warm as hives of natural built combs.

The divisible brood-chamber must have outside protection to make it as warm as a large single-story hive of the same capacity would be without outside packing. And it was this matter of greater warmth of single-story hives that caused me to change from the shallow frames to those that were 11 inches deep for the brood-chamber.

When a colony of bees has weathered the bitter cold of winter and its vitality is far spent, the arrangement of the combs for warmth and protection is of the greatest importance when breeding is begun in early spring. We all know that brood cannot be reared profitably where chilling drafts of air circulate. The brood-chamber that is made up of two cases of shallow frames cannot save the energy of the bees as it should, owing to the great amount of cold air passing around the combs and through the very heart of the brood-nest.

One case of combs, containing as it must the necessary stores, is inadequate to the purposes and requirements of early brood-rearing, and when another case of combs is added the conditions become such that, if they are not bad they are simply worse. The combs in the lower case that come directly under those containing brood in the upper one, cannot be warmed as economically as the lower half of combs in a large single-story hive. That must be evident to one and all for it is simply a physical impossibility for the bees to do it when the heat generated can so easily escape through that horizontal air-space between the two sets of combs. The bees must be enabled to confine the heat of the cluster at the point of operations in brood rearing or there will be a wanton waste of vitality in an effort to meet the growing demand for brood in the lower case.

There must be corresponding means for maintaining the same degree of warmth in that position of the lower case of combs which the bees desire to use for breeding purposes and if the arrangement of the combs does not allow of this, then the expense of additional outside protection must be carried to get the benefits of a double case of combs, in numerical strength, prior to the coming of settled warm weather.

Whatever may become of heat after it escapes from the cluster, we may be assured that it does not return. The accumulation of frost and ice on the outer combs and upon the walls of the hive would seem to be sufficient to dispel any doubts on that score.

Imagine, if you please, a person trying to keep warm and healthy during the long, cold winter in an eight-room or a ten-room house with no ceilings to any of the rooms. Then let your fancy picture a midway opening in the walls of the rooms extending their full length and you will have conceived a first-rate kind of arrangement for a corncrib but a poor one for the nursery.

In attempting to prove that bees are not guided by any law of nature in forming the outline or shape of the combs, Mr. Miller gets wide of the mark. He does not deal with the question at issue but with results that are unavoidable in horizontal brood-chamber. For the sum of his figures, as represented by actual lateral growth of comb within a given time is made possible only by that feature of hive construction. It will be remembered that the assertion I made was that the depth of natural-built combs always exceeded their width when the bees had room to construct them according to their own wishes. I said that the downward growth of comb was more rapid than the lateral and that when completed such combs conformed more fully to the needs of a spherical cluster of bees than shallow or horizontal-shaped combs. Taking the total lateral growth of four small combs in the same frame, as Mr. Miller did, and setting that over against the downward growth of only one of them is necessarily misleading. With just as much force of argument I might say that the total downward growth of all the combs (one over the other) proved beyond peradventure that bees prefer deep combs. Now notice: Mr. Miller says that a small spherical body of bees will start one comb and build downwards twice as fast as sidewise. He then further admits that each division of the main cluster engaged in comb building will build downwards twice as fast as sidewise! Now, it being so that all the combs simultaneously or otherwise started in a horizontal "ten-frame hive" numbering "from two to five in each frame", is at the start, "built downwards twice as fast as sidewise," 'twould seem to be incontrovertible—that no one could fail to see Mr. Miller's position is not tenable.

If I mistake not Mr. Miller makes good capital of the theory of the deep or tall section box, which ever you choose to call it. In fact nearly all the advocates of shallow hives whose writings have come to my notice hold to the belief that bees will complete a deep section quicker than one of a square shape. Funny, isn't it? that a principle of hive construction said to be so utterly at variance with the instincts of the bees when employed in the brood-chamber, it should be so mutually beneficial in the super arrangement. With all due respect for the opinions of those who differ with me I will add that the sectional brood-chambers and system is founded on the strength of artificial resources and unless it has the backing of the sugar barrel it is necessarily shorn of its chief allurement and ceases to be practical.

I am willing that everyone shall us the hive that suits him best. But a for myself, after careful comparison o the two styles of hives I am decided in favor of the large single-story hive for winter brood-chamber.

Wheelersburg, O., Aug. 11, 1904.

PUNIC BEES.

Peculiar Traits, etc., Described by One Who Breeds This Race for Market.

By John Hewitt.

TWENTY or thirty years ago, grea hopes were entertained of bein able to import the great hone bee—Apis Dorsata—into America. M D. A. Jones, founder of the Canadia Bee Journal, spent large sums in tryin to import it; which he said would pr duce "lakes of honey." Well he faile and so has everybody else who has trie to import it. It was to be used in crossing the Italians and they were goin to produce a new breed of bee to b called the Apis Americana; I just mention this because very many of you readers will be too young to have rea all the "big things" expected to resu from its advent into America.

If we have not been able to impo it, we have done something better, think, in introducing a much bett bee to work side by side with it, i.e he Punic race, and we are now able o glean many facts; first, it is pracically worthless as a honey bee comared with Punics, and second, they vill not cross-mate and therefore it is uite useless for "crossing" purposes.

This bee I first imported in 1886. It s of the genus Apis Nigra, and thereore all black, in fact blacker than any ees native to any part of Europe or America; it comes from Ancient Poena in North Africa, and was cultivated or its honey long before the Romans egan to practice husbandry of any ind. We are indebted to the Poenans for the best features of horticulure and agriculture, whose success so ncited the Romans they at last suceeded in crushing them; the, bees owever, remained pure and uncontamnated up to 1891, when I imported a arge number of queens to start their reeding here.

These bees are proof against foul rood, and if hives are large enough, hey will not swarm. They are the amest bees known; in fact just the ees to produce honey in the greatest uantity with the least trouble, and it s on these lines the most dollars will e raked in.

These bees have made themselves at ome in every country no matter how ot or how cold, hence when Major Smith wrote to the British Bee Jourial on October 3rd, 1901, page 397, for dvice in starting bee-keeping in India, nd the editors told him to take out European queens and introduce them o the native stock of bees, Apis Inica, I wrote to him to caution him gainst following such advice, as these ees will not, on any account, accept ny queen of any European race, and ven if it could be done, the queen ould not lay eggs in their combs as he cells are too small. These bees (A. ndica) build combs 5-8 inch thick, paced 7-8 inch from center to center; et these people who profess to know ll about all foreign bees, with a libray of 10,000 volumes, gave this absurd dvice to Major Smith. They, knowng of Major Smith's success, told anther party on August 20th, 1903, page 36, that all the European bees sent to ndia have sooner or later died off, and dvised the keeping of the Native Apis Indica in English hives.

In writing to Major Smith, I adised him to try the Punics as they ad the happy peculiarity of making hemselves at home and doing well in very country I sent them to and they were the only race I knew of which had not been tried in India and failed. Early in December, 1901, I received a letter from him asking me to pack up a nucleus of Punic bees, for his brother to bring with him. As soon as I had read it, a telegram came from his brother to send them that day for him. The bees had been unable to fly for two months through bad weather and it was very frosty. The bees had to be safely packed and combs wired fast to the frames, but I got them off in time to reach London at 8 a. m., and I arranged the box so that the bees could be given a fly on the way, and particularly requested that this should be done. As a matter of fact, his brother was afraid to let them out and they never got even one fly on the way, with the result nearly all the bees were dead on arrival.

Major Smith says under date of January 11th, 1902, "I could only see very few bees between the combs; to me there did not seem as if there were more than about a hundred, if so many, but did not lift out the frames and examine them as it was rather cold." Yet these self same bees increased to six full stocks in two-story hives and yielded 25 pounds of honey before the end of the year.

I soon after received another order for a nucleus of Punic bees for India, which I sent off after the frost had broken up and they not only had a good fly before I sent them, but also three on the way. They arrived with two patches of sealed brood, though the queen was not laying when sent. These were for George Oakes, Esq., Walpole House, Ootacamund, India, a neighbor of Major Smith's, who has written to me several times. In one, dated April 11th, 1903, he says there is no "cross mating with Apis Dorsata or Apis Indica and I infinitely prefer Punics to either variety. A gentleman near here expressed his surprise at my Punic bees, he said when he was last at home they had a bad name for viciousness, but as far as my experience goes, one could not have better mannered or more tractable bees, and they will take a lot of beating in any respect." Since he wrote this I have noticed an editorial article in the "Field" for September 5th, page 440, which reports their doings down to June 1st, when eight of the lots had produced 13 sealed sections and 234 pounds of honey, but as the best part of the year had to come it is safe to estimate a very big crop.

One must not attempt to treat these bees like Italians, for instance, for though they are a smaller bee, they require larger hives for a brood nest. They will require either a 12-frame Langstroth hive or an eight-frame one with a half story above and the frames in this half story should be put the narrow way across the box. This one-and-a-half-story stack hive will never need touching and all one will need to do is to put on plenty of room above and take off the surplus honey—no feeding if there is any honey above. These small narrow frames should have no bottom bars; they will be found very handy in making up nuclei, as three division boards put in one of these shallow boxes will make four nuclei with an entrance on each side and by being put across the bottom frames there will always be the best kind of winter passage ways.

There is this other peculiarity, viz., the queens never attempt to mate till about 20 days old, but they will mate all right at over three months old, hence they will not be favorites with queen breeders who use a split one-pound section for a nucleus. It is here that the value of the short, shallow frame will come in.

There is another startling peculiarity. If you remove a queen and then on the 10th day cut out every queen cell, fertile workers will at once fill all the combs with eggs and they will begin queen cells on these eggs and develop and hatch queens from them, which will duly mate and repopulate the hives. I do not place much value on this fact, except to prove that nature has a wise use for fertile workers, i. e., to be able to requeen a stock when a queen is lost in mating. How the bees do this, i.e., produce both males and females from unmated worker bees, I leave to someone else to find out. All who have these bees can verify the fact for themselves.

Sheffield, England.

The article in "Field," September 5, 1903, by Major Smith, is quite interesting and we therefore present it in full, as follows:—Editor Bee-Keeper.

ENGLISH BEES IN INDIA.

The experiment of introducing the Punic bee at Ootacamund, South India, was due to the enterprise of Major G. de Heriez Smith, of the Central India Horse, who, in January, 1902, imported a nucleus, sent out by Mr. John Hewitt, of Sheffield. In the following month Mr. George Oakes, after having for some years kept stocks of the Indian bee (Apis Indica), also imported a nucleus of Punic bees from Mr. Hewitt. In both instances the bees were brought to India by friends traveling with the mails, and were eighteen to twenty days on the journey. They were well packed on four frames of heather honey, re-wired, and secured in an ordinary Hollands gin case. Ventilation was provided at the door and the top of the case by means of perforated zinc. The bees were flown three times en route—at Port Said, Aden, and Bombay. From Bombay they were brought by mail train direc to Ootacamund.

On arrival the frames were at onc transferred to clean hives, and the bee fed with stimulating syrup. Within week the queen was busily laying, an the stock rapidly increased to te frames. So rapidly did the stock increase that on May 12, 1902, fou frames of capped brood well covere with bees were placed by Major Smit in the traveling box and formed a nucleus, the queen bee of which at onc started queen cells. The first swar from the first imported lot was throw off on July 20, 1902, and four casts fo lowed—on July 30,the first week in August, September 10, and September 1 The first swarm from the lot importe later (kept by Mr. Oakes at Walpol House) went off on September 12, an was successfully hived, and two fo lowed—on September 15 and 19. Th last two casts were united, one quee being secured.

Major Smith and Mr. Oakes eventually joined forces, and located the bee on the Downham estate (coffee) of th latter. By the end of the year th joint stocks numbered nine (six fro Major Smith's, three from Mr. Oakes' but only one of Mr. O's was reall strong and carried a double broo chamber). The honey yielded amounte to about 25 pounds, but it was prove that the bees would store surplus honey in sections, which was a very gra ifying thing, never before done in In dia. Two sections were taken off Major Smith's original stock from Ma 30, 1902.

The season of 1903, from January t June 1, records a yield of seventy-thre sections and 234 pounds of extracte oney, notwithstanding the nine stocks aving been reduced to eight. One ock was taken to Kulhutty and tried ith the coffee blossom when in full oom there in May; but, though honey as abundant, the heat seemed to af- ect the bees. A rack section was ept on the hive and a fair quantity honey was deposited, but the sec- ons were not capped.

Ootacamund appears, in fact, to be e best locality for bees, as there is all times in the year an abundance bee flowers in the gardens, and the calyptus is in blossom from January April, which yields a very superior oney. In July and August the yel- w and black wattles blossom, and so largely yield honey. September d October seem to be the months en honey gets scarce. The queen en, to a great extent, stops laying, d stocks should be overhauled. In ovember drones are killed, even the ubs being removed from the hives. rly in the year honey seems to come again; eight sections were taken, be- les some well-sealed frames, for ex- iction. In January and February it advisable to see that the hives are ll covered, the nights being frosty d cold. A good gunny bag thrown er the hive equalizes the tempera- re, keeping off the sun by day and frost by night.

In March all the hives are at their st, with abundance of stores and ung brood. Racks of sections should placed on all strong stocks. Should hive become crowded another inner ve may be added beneath the orig- l hive, which will afford the queen ple room for laying, especially if ovided with drawn-out comb. This ll tend to keep the stock from arming, an event to be expected in gust or September.

TWO FLORIDA NECTAR YIELDERS.

By. W. S. Blaisdell.

ON PAGE 118, June Bee-Keeper, Mr. Harris writes of his experiments with nectar producing nts. I offer a few lines also in evi- nce.

Enclosed are two specimen plants ich are supposed to be, No. 1, cat- ; No. 2, Japan clover. Whether or they are so is for you to please de- mine.

As to No. 1, I secured a few plants from a man's yard and my attention was excited from the way the bees were working on the bloom. I set them out on the border of my field in loam soil,a mere handful of plants and in two years they have forced their way under unfavorable conditions to form a large bed. They grow very rank and bloom profusely and so on throughout the summer. The bees crowd the bloom, early and late. I am confident that an acre of this will tide a large apiary over our destructive rainy seasons.

No. 2 covers a field about five acres in extent, a half mile away. The owner, a new-comer, calls it Japan clover. He may be mistaken. Last summer the field was in cow peas and beggarweed. Last winter it bore a crop of oats. This summer he has stock on it. It is pine land. The plant has fought its way to supremacy against purslane, maiden cane, dog fennel and other thriving enemies. It is in bloom now and has been for the past month, while the bees are working on it smartly, but nothing like they do on No. 1, and only forenoons at that.

Victoria, Fla., July 7, 1904.

The specimens were received and submitted for identification to Prof. H. Harold Hume, State Horticulturist, Raleigh, N. C., who was formerly connected with the University of Florida at Lake City. Prof. Hume writes in response: No. 1 is Monarda puntata;No. 2, Richardia scabra. The former is closely related to the catnip, while the second, although frequently called Japan clover and Mexican clover, is not clover at all, but belongs to the Madder family.—Editor.

ORANGE BLOSSOM HONEY SCARCE.

By M. W. Shepherd.

BRO. HILL—I have kept a few bees in the midst of the orange groves and have yet my first cell of orange blossom honey to see in the supers. The A. I. Root Co., quotes prices on orange honey, and you can't call the quotations "inflated." Seemingly the quality must be low judging from prices quoted. If I am rightly informed, the name "orange blossom" has been copyrighted by Alderman and Roberts, of Wewahitchka, Fla. Prior to the freeze of 1895 they were the largest producers of extracted honey in the United States and were located where there were many hundreds of acres of ornage groves accessible to their bees. Perhaps Mr. Alderman could tell something interesting about orange blossom honey. From the standpoint of the producer I am of the opinion that much of the orange blossom honey sold was gathered from the "Tupelo" of West Florida.

But should not the dealers guard against giving misleading names to honeys from various sonces? It is asked "what's in a name?", and I reply, "not much, generally," but sometimes there is too much in a name, and then comes trouble.

Say, what color is honey from "Orange blossom?" It must be some color and can't be all colors. Is the aroma anything like orange bloom? If it is, it certainly would be very offensive to my olfactory organs to say the least, but then, I am official smeller fer nobody but myself.

Hollister, Fla., July 10, 1904.

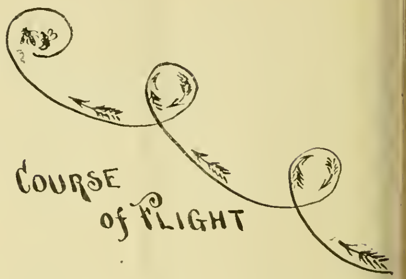
THE MATING OF THE QUEEN.

By Swarthmore.

I HAVE this day witnessed the act of copulation between a queen and drone. About 2:30 o'clock in the afternoon of Thursday, July 21, I was standing near a fertilizing box filling a feeder when my attention was attracted by an unusual commotion in the way of extra loud buzzing, as of drones on the wing; I looked and saw a queen rapidly flying toward the fertilizing box, evidently her home; she was closely followed by two drones, one of which turned and flew off, but the other remained in pursuit. They were flying not six inches from the ground and were not over eight feet from the fertilizing box when the act took place. It was all done so quickly that I marvel at it and I wish to here record the facts as I witnessed them.

I could not see that the queen was flying in any but the natural way returning to her hive, but the drone was unusually swift of wing. They were both flying rapidly and as they flew the drone made two circles about the queen as though to head her off and as these circles were made about the queen she rose slightly each time.

Directly after making the second circle about the queen the drone flew at her about as a worker flies with the intention of stinging in earnest. His



abdomen was curved and his wings rattled in about the same manner. Directly the drone was in contact with the queen there was a sudden lurch to side and they went together to some distance into the field until I lost sight of them. As they flew together they much resembled workers when they attempt jointly to bear off their dead I remained by the fertilizing box perhaps three minutes and saw the queer
return and enter bearing the marks o
having met a drone. I still lingered b
the box and soon saw a worker bea
out the tell-tale white speck. I late
opened the box and saw the quee
bearing the usual thread.

A queen bee is tremendous swift o
wing but I am convinced that a dron
is ten times swifter, for to be able t
encircle the queen in the manner thi
on did, such must be the fact.

In the accompanying drawing I hav
attempted to picture the exact cours
of the queen and drone just previou
to actual contact.

Swarthmore, Pa., July 21, 1904.

LAYING WORKERS.

By Arthur C. Miller.

IN the American Bee-Keeper for Au
gust, page 156, Mr. McNeal, writ
ing on the question of the possibil
ity of bees rearing drones from egg
which would normally produce work
ers, says, "From the size of the larva
it was evident that fertile worker
were not responsible for the state o
affairs, for there had not been tim
enough to attain that size fro
eggs laid by them." He also say
that seven days elapsed from th
time he forced the swarm until he ex
amined and found the conditions re
ferred to. Further, he says the force
swarm did nothing below the exclud
er.

Taking his statements as they stan
I should say he had been dealing wit

a failing queen, and that she was responsible for that drone brood. A failing queen will lay in either worker or drone cells. But even if his queen was not all right the presence of drone brood may have been due to laying workers. These so-called pests are of far more frequent occurrence than has heretofore been suspected. This has become particularly noticeable since the introduction of the yellow blood, i. e., Syrians and Cyprians. These have been used to brighten Italians and have carried many of their traits as well as their color.

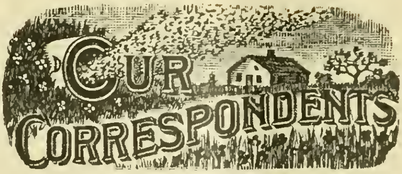
Laying workers will appear under all sorts of conditions. For example, one colony was accidentally divided by two old, black combs. The queen did not pass by them, and in a few days aying workers were doing a land office business in the other half of the brood nest. Another case was of a virgin queen in a one-frame nucleus of old bees. She mated, began to lay and simultaneously so did the workers. The comb was a sight. Apparently the queen was worthless, but the addition of two combs of emerging brood changed the whole complexion of affairs. The queen enlarged her work, and though the worker's drone brood came to maturity, their laying stopped.

The presence of laying workers does not necessarily mean queenlessness, for they are often present with a queen under either of the following conditions: extremely small colony; absence or scarcity of young bees; a divided brood nest; a failing queen; or before a newly introduced queen has got to laying. They cause but little trouble other than occupying a little comb which the queen could use. They do not interfere with the safe introduction of queens when proper methods are followed.

A failing queen is often said to have gone to laying an excess of drone eggs when as a matter of fact laying workers are responsible for much of the trouble.

In relation to failing queens it will be well for the novice to bear in mind that before he replaces such a queen he must be sure her daughter is not already present or that a ripe cell is not there. I think it may be accepted as a law that under normal conditions (i.e., where man does not meddle or disturb) the new queen always matures and begins to lay before the old queen disappears.

Providence, R. I., August 16, 1904.



Calaveras, Tex., 8, 8, '04.

Friend Hill—

Your answer to a previous note was received but you did not answer a question that I asked, viz., Color of queens, workers and hustling qualities and prolificness of the Punic bees, also as to their gentleness. I would like to see an article in the American Bee-Keeper as to their characteristics if you feel like giving it. You, I believe, are testing them and no doubt others would like to learn something of them likewise.

On page 143, W. H. F. tells of bees being killed when returned to their own hive. Now, of course, I am not a beginner nor am I hankering after that dollar but, that aside, there are some questions that might come up in order to understand the why and wherefore of such actions on the part of the bees. He does not tell if honey was coming in at the time, nor if they were left off any length of time. Then returning them at night I do not think was best, as all the old bees were at home, also if the bees were left in a place where they might acquire a different odor I should expect them to be killed. They would be as strangers to the old colony. To sum up, it may have been caused by, 1st, No honey coming in; 2nd—Time of returning them; 3rd, Too long off the hive; 4th, Acquiring a different odor; 5th, The presence of some stranger bees. Remember bees are not very discriminating when they become angry. When they are in an angry mood from the presence of stranger bees they are liable to kill their own bees that had been off the hive for some time and perhaps acquired a different odor. Any of these may have caused it. I think along these lines may have been the cause but it is for a different purpose that I write this letter. I, for one, would like to see this formaline gas treatment for foul brood stopped.

If it is not a complete success with the experts (and it is not) what must it be with the novice? It is a dangerous experiment and the country will never be free from foul brood by using formaldehyde. I hold that the gas cannot penetrate into the mass of matter that dries down in the cell nor can it penetrate the honey or cappings. Undoubtedly the honey is full of the spores; besides if it were possible to combine anything with the honey that would go through it or mix with it sufficiently to kill the spores it certainly would kill the larvae and bees also by feeding on it. My first experience with foul brood was in Canada. My bees had died out completely or nearly so, and I had made arrangements with Mr. J. B. Hall to let me have swarms at $1.50. I to furnish hives and combs. I took some half-dozen or so hives to his place to have swarms put in. He was not at home but a couple of days after I got a letter from him telling me I had foul brood and to come and get the hives. On the colonies I had left I tried salycilic acid, which they claimed at that time would cure it. Of course I lost all I had. Then again I bought an apiary at Lake Charles, La. Did not examine all the colonies, but it seems I got it with the bees. I got them in the fall and it developed the following spring. I went after it with the McEvoy plan and rooted it out; only part of the yard was infected. I also treated a neighbor's bees the spring following and found it in one light colony which I promptly destroyed. I extracted all the honey from diseased colonies, cut the combs out, scraped the frames and scalded the hives thoroughly. The bees I put on foundation starters, then in two days shook them into clean hives on full sheets of foundation. Am using those same hives and frames today. No signs of the disease since. I boiled the honey for about an hour and fed it back and they raised brood with it. That was seven years ago.

As to our crop here this year, it will not be more than one-fourth to one-third of last year, or about 45 to 50 pounds, and dark (most of it) at that.

Yours, etc.,

H. Piper.

In regard to Punic bees, we have said all our knowledge will justify. The ones we have are very gentle. Both queens and workers are black. In this number of The Bee-Keeper will be found quite a long article upon the subject by Mr. John Hewitt, who introduced them into England.—Editor.

Naples, N. Y., Aug. 12, 1904.

Dear Sir:

I am afraid buckwheat will not count much for us this year. It is cool and wet most of the time and the bees lie still with lots of bloom about them. We have not had a smell of buckwheat so far.

Yours respectfully,

F. Greiner.

Haverhill, Mass., July 19, 1904.

Brother Hill—

I would consider it a favor if you should see fit to publish in the Bee-Keeper a satisfactory method of making soft candy for queen cages.

Very truly yours,

J. W. Small.

The most satisfactory candy for cages of which we know is simply a combination of pure pulverized sugar and good ripe honey. Some powdered, or pulverized sugar, used for frosting cakes, etc., by bakers, contains starch, which is injurious to bees, and should therefore be avoided. Coarse granulated sugar is decidedly preferable to the adulterated variety referred to, in powdered form. The advantage of having it powdered is that it more readily absorbs the honey, and in combination therewith forms a dough-like confection which the bees are able to eat entirely; while the coarse granules of the ordinary granulated article are too large for them to take. The process of making is simply mixing and kneading the honey and sugar together thoroughly. It should be made quite stiff—working in all the sugar the honey will take. The inexperienced manipulator will more likely err on the side of making it too thin than getting in too much sugar; and greater danger lies in the possibility of the bees becoming drabbled in the honey than in their inability to use a candy containing an excess of sugar. It should be pressed firmly into the cage, the walls of which should be made non-absorbent by an application of paraffin or wax.—Editor.

NEW ZELAND.

Marton, N. Z., July 12, 1904.

Dear Mr. Hill——

At the present time we are in the midst of our winter, which has been fairly good so far as bee-keeping interests are concerned. Our last honey season closed rather suddenly in March, with but a small crop.

Swarming was very general throughout New Zealand last season, which was doubtless a result of the scarcity of forage. This seems to be the case here every alternate year.

There is now a great quantity of adulterated honey on the market, branded, "Pure Clover Honey." There is scarcely any honey about it, it being composed chiefly of sugar with a slight admixture of honey. At the rate this stuff is getting into the markets it will be but a short time until the honey trade is ruined.

State aid is to be again brought before the govenment this winter session, by Mr. Isaac Hopkins of Auckland and the writer. It is proposed to first have an experienced bee-keeper go around and lecture on bee-keeping and at the same time form bee-keepers' associations. By this system the government will then see by the report sent in by the one lecturing what is required and then take steps to carry out the proposed system of helping to swell the industry. It was rumored that an expert had been appointed "at home" but this, I am glad to relate, is untrue and a good thing, too, for by such an action as that, it would simply kill the prospects of the industry forever more.

Another honey poisoning case has taken place at Auckland. The following I take from an Aukland paper. This is the fourth case of its kind that has happened up there and is due to the presence of a plant called "waikariki," which blooms in May:

POISONED BY HONEY.

A Shooting Party's Experiences.

Thames, Thursday.

A most regrettable honey-poisoning incident occurred yesterday to a duck-shooting party up the Piako River, as the result of which two men are now in the hospital dangerously ill, whilst two others had a narrow escape from a similar result.

The party comprised four well-known Ponsonby gentlemen — viz., Messrs. G. Carder, E. Owen (both of the firm of Carder Brothers and Co.), Arthur Cooper, and James William Oldham; also a Maori named Thompson Hughes, the latter having joined he party at Kerepehi as a guide.

On Friday night last the party proceeded up the Piako River in an oil aunch, and went about 12 miles above he junction with the Waitoa River. All went well until yesterday morning, when the party discovered a quantity of wild honey in an old Maori whare, situated in the kahikatea bush, near Morrisville.

At first the European members held aloof from eating any of the honey, but being eventually assured by Hughes (the Maori), who partook of it pretty freely, that it was all right, Cooper and Owen finally sampled it, the former especially eating a fair quantity. This was at eleven a. m. At two p.m. they ate some more of the honey, being joined on this occasion by Carder, but Oldham declined to participate.

About half past two the honey began to affect the Maori, who was taken in the form of a fit, and soon afterwards Cooper developed symptoms of poisoning by violent vomiting.

Shortly afterwards Carder and Owen also began to feel bad, but Owen at once took an emetic and kept on doing so, the others, however, declined to follow his example.

Immediately on the Maori and Cooper being taken ill their comrades put them on board the launch, and made a start for the Thames, but by the time Kerepehi was reached the former two were unconscious, and Carder and Owen were gradually becoming weaker. Owen, however, was the only one who could manage the oil engine, and bad as he was he manfully remained at his post until Thames was reached, at about half past nine p.m., whilst Oldham did what he could in looking after those who were so ill.

As soon as possible, Oldham came ashore, informed the hospital-authorities through the telephone what had occurred, and then assisted by Constable Blake, the four sufferers were conveyed in a cab to that institution, where emetics were administered, and the stomach pump used.

Carder's and Owen's condition at this time, however, was not considered serious enough for them to remain in the hospital, but at a later hour Owen began to feel bad again, and was re-admitted. He, however, is now nearly all right again, and so is Carder.

Cooper and the Maori were in a bad condition, and remained unconscious all through the night and today, despite the efforts made by Dr. Aubin and the hospital staff to relieve them. Towards evening, however, Cooper began to show signs of regaining consciousness, and now seems to be in a fair way toward recovery. The Maori still remains unconscious, but there seems to be a slight change for the better setting in.

Owen deserves credit for the pluck he exhibited in sticking to his post at the engine, for had he not done so it is hard to say what would have become of the party, as he alone, as previously stated, knew how to manage the oil engine.

The inquiry at the hospital at nine o'clock to-night elicited the fact that both Cooper and Hughes (the Maori) are now conscious and progressing favorably towards recovery, although not yet considered out of danger.

In connection with the above, Mr. Isaac Hopkins, apiarist, of Auckland, informs us that the only plant likely to cause poisoning at the present time is the waikariki, a plant which much resembles watercress, and has a yellow blossom. The plant is in bloom this month. Mr. Hopkins advises that care should be exercised not to eat wild honey at the present season of the year, as the honey will almost invariably be found to be poisonous.

THE NATIONAL CONVENTION.

To American Bee-Keeper Readers:—

The annual convention of the National Bee-Keepers' Association will be held September 27-30, in the auditorium of the Christian Endeavor Hotel, within one hundred feet of the south entrance of the St. Louis Fair. Vice-Pres. C. P. Dadant has just returned from the fair and has secured the best possible for the members.

Special rates:—Send at once 50c. to General Manager N. E. France of Platteville, Wis., to secure charter certificate to insure your special rates at above hotel. $1 a day lodging, or $2 a day, board and lodging. Otherwise higher rates will be charged. Make it a point to attend the fair the week before or after the convention, and thus continue your board rates. Other hotels near, but higher rates charged. Market St. street cars west bound in front of Union depot will bring you to above hotel without transfer. Missouri State Bee-Keepers' convention in same hall Sept. 26.

N. E. France.

The subject of foul brood legislation is agitating the minds of beedom in the British Isles.

Hardscrabble Interviewed.

To the Readers of the American Bee-Keeper:—

At the request of the editor I have undertaken to commune with the spirit of the late Deacon Hardscrabble and to report to the editor the results thereof. I have already had one "interview" with the Deacon (the substance of which follows) and expect to be able to have others from time to time. If the results are fragmentary, blame not me, for spirits are "notional" and the Deacon is very far from being an exception to the rule. Not being a professional medium, I beg you will forgive my passing incognito and permit me to sign myself

July 5, 1904. Merlin.

The Deacon's Message.

"A-h-h-h-h! You mortals are bloomin stupid! Here I've been a tryin all these months to make Harry understand me and t'is but now that he has become cognizant of my presence and been bright enough to get someone as knows, to talk with me. Well that was bright anyhow—durn sight mor'n some folks know. I uster tell him 'twas powerful bad a doin of so much work nights, but twas mighty fortunate arter all, else I 'low I'd never a got his attention.

"I've just been all stirred up a wantin to say things to the boys and I'm right glad to get the chance.

"No, you mustn't ask no questions as to why I am still interested in mundane things or what I be a doin here, for if you do I'll get called off. It's agin ther rules.

"Say but there is one powerful advantage in a lookin' at things from here, the perspective is most bee-autiful. Its plumb funny to see the boys a tumbling over theirselves to laud and worship every new star—provided he looks big enough. Now there's a chap in York State 'lows as how taint possible to overstock a locality, that he's got hundreds of colonies in a spot. Then, b'gosh, right in the same breath almost he says he feeds TONS of SUGAR. Wal, there is some truth in sayin' yer can't overstock a sugar refinery location. D'ye spose he'd dare flavor that syrup strong with onions? No, not by the great Horn Spoon.

"Who is he? Ask W. Z. of the Review. He is responsible for pasting him up in the bee-keepers firmament.

American
Bee-Keeper.

THE DEACON INVADES THE EDITORIAL SANCTUM.

"Swift as thought the flitting shade
"Thro' air his momentary journey made."

"The bad part of it is W. Z. endorses the practice, so do a lot of the BIG producers, so do the Gleaning's folks. If you will just sort of cast your eye over the writins of the boys as tells of the big yields you'll find every durned one of them says they feed early, feed late, feed between times, feed slowly, feed steadily, feed any old way, only FEED. Why say, the boys would tar and feather the chap as should get through a law a compellin' of em to flavor their syrup right up strong.

"Oh the wickedness of the Korn Syrup folks and the sinful cussedness of the fellers as mixes in a little glucose to keep the honey from candying. Don't you see them fellers is without the ring, they don't belong to the graft. They don't keep bees, they're rank outsiders, they're SCABS. Oh! ho! ho! ho! Say, its just royally blamed funny.

"Bees eat up the feed afore it gets into the surplus crop. You say color it sky blue or flavor it rank and taste for yourself. No don't give one little dose, just 'feed accordin to the rules,' early often and always.

"There aint no such thing as 'overstocking' so long as sugar holds out. 'If this be treason, make the most of it. A-h-h-h-h-h."

NATIONAL BEE-KEEPERS' ASSOCIATION.

Officers to be Nominated in Advance of Election.

One of the latest amendments to the constitution of the National Bee-Keepers' Association provides that the Board of Directors may "prescribe equitable rules and regulations governing the nomination for the several officers," and the Board has just decided that the General Manager shall, in August, publish in the bee journals a call for a postal card vote of the members of the Association for the nomination of candidates for the several offices (stating the offices) to be filled at the next election. On October 1st the General Manager and one other disinterested member chosen annually by the Board of Directors, shall count the votes, and the two men receiving the greatest number of votes for each respective office are to be candidates for said office; the names of the nominees and the officers for which they are nominated to be published, AT ONCE, in the bee journals.

In accordance with the foregoing, I hereby ask all members of the National Bee-Keepers' Association to write me their choice of men as candidates for the following offices:

To succeed Jas. U. Harris, of Grand Junction, Colo., as President.

To succeed C. P. Dadant, of Hamilton, Ills., as Vice-President.

To succeed Geo. W. Brodbeck, of Los Angeles, Calif., as Secretary.

To succeed N. E. France, of Platteville, Wis., as General Manager.

To succeed E. Whitcomb, of Friend, Neb., as Director.

To succeed W. Z. Hutchinson, of Flint, Mich, as Director.

To succeed Udo Toepperwein, of San Antonio, Texas, as Director.

October 1st the votes will be counted, and the names of the two men receiving the most votes for each respective office will be published in the bee journals, then, in November, a postal card ballot will be taken which will decide which of the nominees shall hold the office.

Send all votes to

N. E. FRANCE,
Platteville, Wisconsin.

NOTICE TO FOREIGN PATRONS.

Fort Pierce, Florida, is not a foreign money order office, hence orders drawn upon this office cannot be cashed. Please make all such orders payable at the Jamestown, N. Y., postoffice, to the order of the American Bee-Keeper or The W. T. Falconer Mfg. Company.

Mr. S. T. Pettit, of Canada, it is said, tests the atmosphere for humidity by placing a pinch of salt on a board in the extracting room. If the salt attracts moisture from the air, extracting is deferred until it becomes dry, thus showing that conditions are safe for handling honey. Owing to the well-known affinity of honey for moisture, such a precaution, and the means are all right. This is a point, however, in which "locality" figures to the most extreme extent. It is probably a pratical plan in some certain localities, but during a great part of the year in the arid West, every particle of moisture would be soon taken from the salt and it would remain perfectly dry, excepting at night. On the other hand, if one were to be guided by the condition of the salt in South Florida, he would probably have to wait for months for it to become dry.

THE
Bee-Keeping World

Staff Contributors: F. GREINER and ADRIAN GETAZ.

Contributions to this Department are solicited from all quarters of the earth.

BRAZIL.

Under the initials J. v. B., a description of an ant, very hostile to the honey bee, is given in the Bienen-Vater. The ant is small, hardly one centimeter in length, reddish in color, and very strong. She lives in hollow and decayed logs, and trees, under stones and other hiding places. Attacks on bees are made only during the night. The first colony, the writer says, he had was completely destroyed the first night. Colonies purchased afterward were placed on cement foundations and surrounded by water. But even this did not always prove effectual. Sometimes a palm leaf would drop from overhead touching a hive at some point and thus form a convenient bridge for the robber ants; or a blade of grass would find a lodging place in the water some way as to form a bridge etc., etc. The ants would always be very quick to take advantage of any such accident. The first ant which succeeds and reaches the hive entrance returns to its home and spreads the news and an army of ants at once starts out. A short battle is fought at the entrance. It requires two bees to kill one ant and they have to make the attack together, one from the rear, the other from the front, and even then one of the bees generally loses its life in the battle. If the ant colony is a populous one, and they can fall upon a bee colony with an army from 6,000 to 20,000 strong, the swarm is soon whipped out. At first the bees fight like tigers, but after a while they become discouraged and then only try to fill themselves with honey. The ants, however, are not satisfied to take possession of the stores, their aim also is to kill or so mutilate all the bees as to make them useless for the future. They do this by cutting off their wings and then dragging them out of the hives. A strong ant colony often cleans out a hive in one night completely, bees, honey and brood. The writer of the article says that he has seen armies of ants several millions strong and that he has not found a practical method to destroy them.

RUSSIA.

A peculiar method of migratory bee-keeping is practiced in Russia on the larger rivers flowing south, according to the Rhein. Btzg. Large log rafts are constructed and covered with soil upon which some gardening is done. An apiary is located upon it and the attendants put up a tent for their shelter. I surmise the moving is done nights, rests are taken during daytime. The rafts are floated down the rivers during the season. The final stop is made at the end of the season in a section of the country whose timber is scarce. The rafts are taken apart and the timbers sold. Bees and honey are disposed of and the attendants make their way homeward by rail or steamboat.

ENGLAND AND IRELAND.

The British Bee Journal reports heavy winter losses throughout the Empire. Never before have bee-keepers had so many weak colonies in the spring.

GERMANY.

A good honey crop is reported from many places in Germany. The winter has been mild and the spring early.

For years I have had a feeling that the writings of the American Bee-Masters did not receive consideration of the German bee-keepers as they should. The editor of Gleanings has of late expressed a similar opinion in his journal which induces Pfr. Buchholz to make the following reply in Deutsche Bienenzucht: It is an undisputable fact that we in Germany may learn a good deal from the American bee-keepers; but when all one's knowledge of a foreign people is based upon translations, misconceptions often result. The masses, of course, are depending upon the translations for their information." As a matter of fact, he —Buchholz—practices American methods in rearing queens and rears fine queens.

To improve the bee-pasturage the bee-keepers of a certain district have put the following plan in operation: Each bee-keeper pays five cents for every colony owned into a common fund. The money is used in purchasing phacelia-seed which is distributed gratis to such bee-keepers and farmers who will agree to sow the seed upon their lands within reach of the bees. A part of the money raised has been used for planting out willow trees.

AUSTRIA.

It may be noticed that a great deal more artistic taste is exhibited in the construction of bee hives in England, Germany, etc., than is customary in America. In Carniola, a province of Austria, it is an old time custom to decorate hives very fancifully. Scenes from Biblical history are very commonly represented in fancy colors upon the fronts of hives, also historical facts as relating to the history of the country. The common customs of the people receive attention also, and the humorous side is frequently brought out in a striking manner. Some of the older pieces are real pieces of art well worth preserving. Professor Benton was showing such a one at a bee-keepers' meeting a year or two ago. The Americans always have and do yet push the practical side of the business only. Their hives are made simple and most convenient to handle.

SWITZERLAND.

The "Societe des Apiculteurs Suisses" has just published its annual report covering the work done during last year at its different stations. The report is well printed, with maps, engravings, half-tones, etc. Among the advices and other items given, the editor of the Rucher Belge has translated the following:

Avoid air currents striking the entrances of the hives. The nearest bees, the ones on the outside of the clusters, are sometimes chilled and being unable to move to a warmer place, fall to the bottom of the hive and die. According to some of the reports the loss may be much greater than usually supposed. Some protection should be provided. (In Europe the bees are wintered out of doors.)

2. Avoid disturbing them. A knock on the hive will bring out a dozen or more bees which get chilled and are unable to return. Even if they do not actually come out of the hive they leave the cluster, and are chilled before regaining their place.

3. The minimum consumption of honey for the months of November, December and January was five and one-half pounds. For February and March seven and one half pounds. For the five months 13 pounds. The larger quantity during the last two months is due to brood rearing. One colony went through with only a little less than eight pounds while another consumed nearly 22 pounds.

4. It is best not to visit the hives when the bees make their first flying out. They are apt to ball the queen.

5. Early in the spring the bees consume whatever is left of their winter stores and raise a considerable amount of brood. These stores are soon used up, and when they are, the bees depend upon what they gather to raise brood. As the bad weather often interferes with the gathering, the amount of brood is necessarily curtailed in proportion (unless the apiarist feeds), and when the flow comes, there is not the population to gather it, that otherwise would have been.

6. Honey is better than sugar for spring feeding. Probably because it contains some pollen. The provision of pollen, like that of honey, may be too short.

7. Have none but strong colonies. A good way to strengthen a weak colony is to add a swarm to it, keeping the queen of the swarm rather than that of the colony. Very often the weakness of a colony is due to the unprolificness of the queen.

8. "Many swarms, little surplus." A proof of this was seen at the Altstaetten station. Two colonies of equal force had worked equally well up to the time of swarming. The colony A swarmed; colony B didn't. Here is what surplus they produced during the three months:

	May	June	July	Total
Colony A..	17	1 1-3	3	21 1-3
Colony B..	55 2-3	3 1-2	4 1-2	63 2-3

The swarming of A occurred in the middle of the main surplus flow which that year was of rather short duration.

9. The report has a chart in colors showing the amount of nectar brought daily by several colonies on scales, and also the amounts consumed, taken out.

The best colony of the 29 stations gave a surplus of 122 pounds. During only 21 days, the daily amount brought in amounted to four pounds or over. The remainder of the season it was much lower.

Another colony on scales gave only 33 pounds of surplus. During only 10 days the daily amount brought in (as shown by the scale) reached between two and three pounds. All this shows how few are the days during which the bees can gather large amounts of nectar, and how necessary it is to have the strongest possible colonies when such days happen.

10. The atmospheric electricity has an influence on the production of the nectar. During the stormy or threatening days, the positive electricity of the atmosphere is constantly passing in the ground and accelerates the movement of the sap, the growth of the plants and the other features of vegetation. If, now, the ground is rich and sufficiently wet, the production of nectar will be increased. If the opposite conditions prevail, the flow of nectar will be diminished. Sometimes in dry weather, a stormy condition of the atmosphere can cut off the flow entirely. That this double action exists has been shown by submitting plants cultivated in pots to an electric current.

11. To cure foul brood, it is recommended to take away the combs, shut the bees in a box without food during two days and return them after having disinfected the hive thoroughly. If the apiary has been badly diseased, the advice is given to move it elsewhere. Weak colonies should be united.

12. In most localities (in Switzerland) the main honey flow is during the last half of May.

In one of the bulletins of the Suisse Romande Society is an interesting work on honey, by Prof. F. Seiler. The only part really new is on the production of the different kinds of honey dew. Here is what he says:

"The bees also gather honey dew chiefly at the base of the leaf stems. The honey from that source is of a greenish-brown color, very thick, and of a peculiar strong taste. It is not obtained every year. It is found on fruit trees only when the crop of fruit will be absent or very short. This honey dew is formed by the materials which ought to have filled the fruits. When there is no fruit to fill, these materials exude chiefly at the base of the leaf stems. They contain a small proportion of sugar, but are chiefly formed of dextrine. The dextrine is a gum very similar, chemically speaking, to the different fruit sugars. The bees gather it and transform it into honey in the same manner in which they transform the nectar of the blossoms. However, the transformation is not complete. A portion of it remains unchanged, and it is that portion which gives the honey dew its particular consistency."—Le Rucher Belge.

FRANCE.

A discussion on the use of colonies on scales, and the meaning of the figures in regard to the evaporation of nectar, consumption of the bees for living, producing wax, raising brood, etc., is going on in the Apiculteur between Messrs. Sylviac and Boris Spoerer. The whole thing does not seem very clear except one point. Up to this day it has been admitted that the amount of nectar gathered by the bees amounts to the difference in weight of the hive between early in the morning and late at night. But it is more than that. The honey or nectar evaporates during the day as well as during the night; the bees eat, secrete wax and feed the brood as well during the day as during the night. So the difference in weight between morning and night does not show the whole amount brought in, but only that amount less what is consumed or evaporated. Now suppose a hive weighs 40 pounds in the morning and 50 in the evening and 45 the next morning. Five pounds will have been consumed and evaporated during the night. Certainly something like five pounds must also have been used up during the day. So the bees must have brought in not only the 10 pounds shown by the scale (the difference between 50 and 40) but also five pounds consumed during the day, that is 15 pounds in all.—L'Apiculteur.

To prepare barrels for honey Mr. Bourgeois gives the following: Use barrels with iron hoops. Thoroughly dry them in the sun before using. Drive the hoops as tight as possible and put in a few nails to keep them from slipping. Coat the inside with glue or gelatin.—L'Apiculteur.

THE AMERICAN BEE-KEEPER

PUBLISHED MONTHLY.
THE W. T. FALCONER MANF'G. Co.
PROPRIETORS.
H. E. HILL, - EDITOR,
FORT PIERCE, FLA.

Terms.

Fifty cents a year in advance; 2 copies 85 cents; 3 copies $1.20; all to be sent to one postoffice.

Postage prepaid in the United States and Canada; 10 cents extra to all countries in the postal union, and 20 cents extra to all other countries.

Advertising Rates.

Fifteen cents per line, 9 words; $2.00 per inch. Five per cent. discount for two insertions; seven per cent. for three insertions; twenty per cent. for twelve insertions.

Advertisements must be received on or before the 15th of each month to insure insertion in the month following.

Matters relating in any way to business should invariably be addressed to

THE AMERICAN BEE-KEEPER,
Falconer, N. Y.

Articles for publication or letters exclu for the editorial department may be addressed to

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Editorial

Adulteration is a universal evil, with which the producer of all lands has to contend.

As a result of the persistent visits of Deacon Hardscrabble and the battery of cameras which have been set for him for some weeks, our readers are this month given a glimpse of our private sanctum and the fountain head from which this department of The Bee-Keeper emanates.

Remember the big National convention at St. Louis, the 27th to 30th of this month, in Endeavor hotel near south entrance to fair grounds.

Mr. Leo F. Hanegan, the hustling general manager of the St. Croix Valley (Wis.) Honey Producer's Association, is endeavoring to arrange for a tourist car and bee-keepers enough to fill it, from St. Paul to the St. Louis convention.

Comb honey producers who find Cuban competition an obstacle in the way of successful future operations might find it advisable to convert their holdings into cash and join the ranks of the speculators at Havana. Buy it in the comb cheaper than we can produce it, with no winter losses or foul brood to contend with.

Brother Adelsbaugh, of the Western Bee Journal proves to be a veritable shark in the journalistic swim. Not content with handling the Pacific States Bee Journal, he swallowed the Rocky Mountain Bee Journal a few months ago, and now has taken in the Southland Queen, of Texas. So far as our knowledge goes, he now has a corner on western bee journals. Success to his enterprise.

W. K. Morrison, in last Gleanings corroborates his former statement that America has nothing to fear from foreign competition, and Editor Root concurs. A letter from an Indianapolis dealer dated August 16, concludes: "Comb honey situation very much demoralized here on account of a lot of Cuban honey which sells at eleven and three-fourths cents." The "future" may be all right—we don't know as to that—but heaven knows the present is bad enough, from the standpoint of the American honey producer.

The bee-keeper who extracts green, raw honey for the market is a foe no less to be dreaded than the adulterator. Seeking a personal gain in quantity, a victim of his own ignorance, he deals himself the hardest blow; for while his own crop is not perceptibly increased, the quality is such as to preclude a second sale to a customer; and the tendency is to disgust those who might otherwise become habitual users of our product.

H. C. MOREHOUSE DEAD.

While the forms for the August Bee-Keeper were on the press, the following announcement was received:

Boulder, Colorado, July 26, 1904.

Editor American Bee-Keeper:

I am pained to have to report to you the death of our mutual friend, Harry Clinton Morehouse, editor of the "Rocky Mountain Bee Journal" formerly of this city. Death occured Sunday morning at 3:30 after an eight day's illness; cause, appendicitis. He was a very prominent man in this city, especially in his business among bee-keepers. He leaves a young wife and son fifteen months old, together with a widowed mother. I am reporting this by request of the wife, being a long time friend of the family.

Respectfully,

Leo Vincent.

HARRY CLINTON MOREHOUSE.

Thus we have to chronicle the demise of one of the most promising and distinguished of the younger members of the apiarian craft. Mr. Morehouse was 35 years of age and was until recently the editor and publisher of the Rocky Mountain Bee Journal, one of the most ably edited journals of America. The fraternity has sustained a great loss through his death, which comes as a severe shock to his host of friends and admirers from ocean to ocean.

The American Bee-Keeper extends assurances of its condolence with the bereaved family.

Through the courtesy of the Bee-Keepers' Review we present herewith a portrait of our departed brother.

BEES, OUR THEME.

The fact, long established and unquestioned, that the bee keeping fraternity is composed very largely of broad-minded, deep-thinking, liberal and courteous gentlemen, is, we are sure, well founded. It is not so very recently, however, that we made the discovery that there are some who are just the least bit peculiar. Though the ratio is, undoubtedly, low, the writer is not so sure that we haven't a slight sprinkling of cranks whose hobbies run counter and criss-cross, in divers ways. Probably there is no other point at which these freak notions and pet hobbies collide so frequently as in the sanctum of the editor of a bee journal.

Every enthusiast, or nearly so, craves publicity for the theories and notions which he so tenaciously adheres to. May be they are sacred truths; that's not for us to determine, unless the subject relates directly to bees or bee culture. This journal cuts out "kindred topics," "home departments," and all other side-shows. We are running a bee journal, solely and exclusively; and yet certain correspondents think unkindly of us because political convictions which weigh heavily upon their minds are not found available. Another who takes a deep interest in religious work persists in infusing his personal beliefs and deductions into his contributions to a bee paper, and calls us narrow-minded because our mission is not the promulgation or religious doctrine. Then, there's the fellow who can't write a paragraph without straining himself to deliver a thrust at those who have espoused Christianity, and mingles his bee talk with sneers and belittling insinuations; and then he is mad clear through because it does not appear in print in The Bee-Keeper. He then feels it his duty to enlighten the editor, at great length, upon the subject of journalistic ethics, and particularly to define the limit of the editorial prerogative. In fact, to fully explain why it is that The Bee-Keeper is not more important and more widely circulated. The "reason" is, of course, because we don't know how to run a paper and haven't sense enough to absorb the excellent advice of our eminently competent correspondent.

Now, we had no intention of taking so much space to speak of this matter;

but in as much as we are all concerned in the subject matter of The Bee-Keeper, it may be well to exhaust the question before concluding, which may be briefly done:

Every publication has its peculiar style—its likes and dislikes. Our preference, first, last and all the time, is for articles the publication of which will interest or instruct bee-keepers, separate and apart from all "home," religious, political, medical or other foreign subjects. We want to discuss bees. We are always in need of good articles of this kind; but if the reader has some personal grudge which he seeks to proclaim indirectly, concealed in an article purporting to deal with any apiarian question, send it to some other journal. We don't want it.

We have recently been forbidden to edit the copy of a correspondent, for the reason that unnecessary and uncharitable reference to those who adhere to the Christian faith was cut out, in a former article. It is our most earnest endeavor to treat every correspondent in a fair and courteous manner; but it must be emphatically and specifically understood that if correspondents do not wish the editor to take such liberties with their copy, they themselves should cut out all such lines before mailing it.

It is by no means necessary that matter for publication should be in accord with the editor's personal ideas; but so far as petty "scraps" and religious references are concerned, it must pass his scrutiny. We are not in the business to insult one patron simply to gratify another, nor, indeed, to gratify any clicque.

One bee-keepers' society officially notifies this office that unless we see fit to publish any matter entirely as submitted, we must ignore it, and make no comment. This is a most absurd idea. Information relating to public matters which affects our pursuit, and through public channels received, we presume may be freely discussed by individuals or the press. An organization which seeks to throttle free speech, or one which assays to bulldoze the trade press should remove its quarters to other than American soil.

The extreme importance of unity in our fraternal ranks at the present time should overshadow petty squabbles. The situation demands serious unprejudiced thought and consistent action.

WHERE THEY GET ORANGE BLOOM HONEY.

The following is from the Bee-Keepers' Review for August: "Pure orange bloom honey is something secured in large quantities; so writes Mr. Frank McNay, of Redlands, California. He says that near the coast, in California, the weather is seldom suitable (too cool) when orange blooms to secure much surplus from that source, but, farther inland, at Redlands, for instance, which is 80 miles from the coast, the weather is warmer when the orange is in bloom, and beekeepers secure not only barrels, but tons and carloads of pure orange bloom honey."

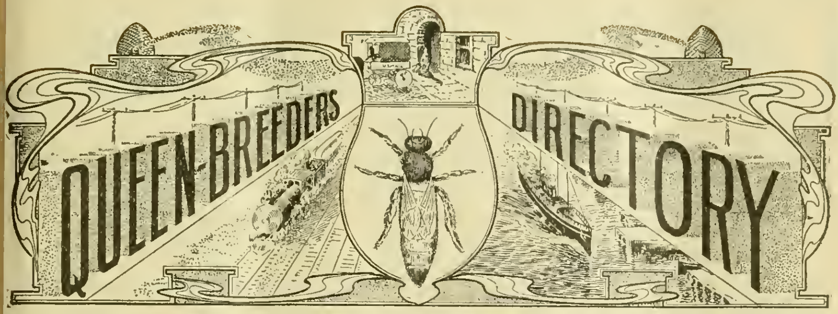
Yet we have said, and repeat, that but once in our life have we been permitted to taste what was said to be pure orange blossom honey. And this "once" was in a grocery store in Redlands, California, where it was on exhibition as a novelty, in a two-quart jar, conspicuously labeled. That was in 1891, at which time the writer was engaged in the apiaries of Messrs. Wheeler & Hunt, embracing something like 2000 colonies of bees, nearly 200 of which were within the corporate limits of Redlands, surrounded by groves in full bloom. Still other hundreds were situated near Riverside. Several cars of honey were loaded at Colton and San Bernardino under the writer's direction; but, be it known, they were not loaded with orange bloom honey. Conditions may be different now, and Mr. McNay probably knows whereof he speaks; but the fact remains that the writer does not believe that he has ever seen enough honey from the orange bloom to fill a sixty-pound tin can.

WESTERN ILLINOIS CONVENTION.

The Western Illinois Bee-Keepers' Convention will meet Sept. 20th at the courthouse in Galesburg, Ills. Convention will begin at 9 o'clock a. m. All who are interested in bees or bee-keeping are cordially invited to attend, whether members or not.

E. D. Woods, Sec.
J. E. Johnson, Pres.

In competition with an official trade mark or seal of the National Bee-Keepers' Association, the adulterator would find his nefarious trade less lucrative than at present; and his loss would be the gain of the honest producer of pure



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HONEY AND BEESWAX MARKET.

Denver, Aug. 16.—Supply of extracted honey is good. Demand only fair as there is so much fruit. We quote today: No. 1 white comb, per case, $2.75; No. 2, $2.50; extracted, 6¾-7½ in a local way. Demand light. Beeswax, 22 to 25c.
Colorado Honey Producers' Assn.,
1440 Market Street.

Cincinnati, July 29.—The supply of honey at the present time is limited, with but moderate demand. New honey is beginning to arrive. We quote our market today as follows: Amber extracted in barrels and cans, 5¼-6½c. White clover extracted 6½-8c. Comb honey, (demand limited) 13-14c for fancy and No. 1 Beeswax 29c.
The Fred W. Muth Co.,
No. 51 Walnut St. Cincinnati, O.

Marton, New Zealand, July 10.—The honey markets are very firm at present and will continue so for some time to come. The demand for pure honey cannot be supplied, owing to the slack system of bee-keeping in New Zealand. The extracted market is as high at present as in years, while the market for comb is good. I quote ruling prices for the American Bee-Keeper today as follows: Extracted, in bulk, 11 to 13c. In tin cans, 12c per lb. Strained honey, 8 to 10c. Comb, per dozen pound-sections, $2.00 to $2.50.
G. J. S. Small

Buffalo, N. Y., Aug. 11.—The supply of new honey is very moderate, and quite a lot of old stock yet here. Cannot advise shipments of new honey as yet. Too much fruit, and October is early enough. We quote: Fancy new, 15 to 16c Old, 5 to 10c. Extracted, 5 to 7c, with no supply, and not wanted. Beeswax, 30 to 32c.
Batterson & Co.

Kansas City, Mo., Aug. 11.—The supply of honey is increasing while the demand is improving. We look for a general improvement next month with higher prices. We quote today: Fancy, $2.75; extracted, slow at 5½ to 6½c;. Beeswax, 30c. C. C. Clemons & Co.

Chicago, Aug. 8.—A little new honey is being offered at 12 to 12½c per lb. for No. 1 to fancy. Extracted, 6 to 7c for white and 5 to 6 for amber Beeswax, 28c. R. A. Burnett & Co.,
199 So. Water Street.

Boston, July 8—Our market on honey, bot
comb and extracted, is practically in a slumbe
ing condition as there is really no call whateve
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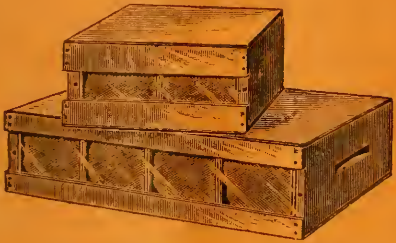

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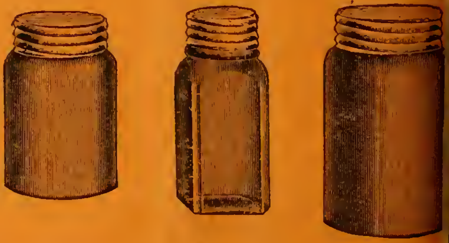

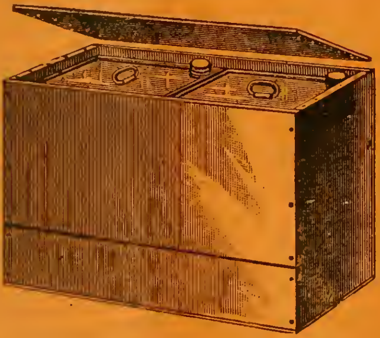

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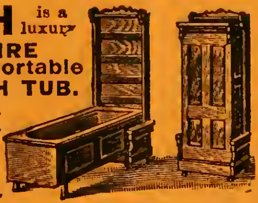

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THE AMERICAN BEE-KEEPER

Vol. XIV OCTOBER, 1904. No. 10

A POPULAR FALLACY.

Apiarian Counselors and the Press Still Teaching a False Doctrine.

By O. O. Poppleton.

BEE-KEEPING literature has, ever since the general use of the extractor, been full of warnings about the danger of taking out honey before it is properly cured. These repeated warnings are, and probably always will be, in order and should be reiterated time and again by our periodicals.

In my opinion a serious mistake has been made in many of these warnings—one which materially lessens their good effect. I refer to the idea that materially more honey, such as it is, can be obtained by extracting honey before any of it is sealed over. So far as I know this idea has been treated by all writers as though it was an actual fact, conceded by every one. I believe our editor, Mr. Hill, and myself are the only ones who have ever questioned this idea, and gave warning of the serious injury it was doing. So long as human nature remains as it is, some men will be found even among bee-keepers who think more of a few extra dollars than they do of right or wrong; and so long as they are told of a way to make more money by wrong methods than by right ones will use the wrong ones without regard to any injury done to others. It is time this idea were sent into oblivion where it rightly belongs, and where it can do no further damage.

My attention was first directed to this matter while keeping bees in Cuba, some 15 years ago. Up to that time I supposed the idea was correct, having seen it repeatedly given by our foremost writers and never disputed by any one; but while watching some experiments on other points I stumbled on some new ideas.

Special conditions there make it possible to observe much more accurately some points in bee-keeping than it is possible to do in this country. Here our honey yielding flowers remain continuously in bloom day after day during their season and any sharp difference in the quantity of honey stored by the bees on consecutive days is caused by weather changes of some sort or other. The bell-flower, from which most of Cuban honey is obtained is a daily bloomer that is, new flowers come out each day and last for that day only. It is very irregular in the amount of bloom it has day by day. I have seen hedges and other places almost as white as a snow-bank one day with bloom and the next day one might walk a mile and not see a hundred blossoms, while the following day there might be half or a quarter as many as on the first day. As the weather conditions are much more steady there than in this country the amount of honey gathered any day was in almost exact proportion to the amount of bloom on that day and one could tell each morning with almost absolute certainty what would be the record of the scale hive at night. Any close observing bee-keeper will readily see what an advantage this irregular daily blooming was in certain lines of observation.

I practiced taking record of weight of the hive on scales after work had ceased each day and again before work commenced in the morning. This gave me the actual amount of shrinkage or evaporation occuring in the hive from close of gathering one day to commencement of gathering next day. The percentage of shrinkage to amount brought in was quite regular during the entire season. It was about 25 or 30 per cent. Whenever there was a flowerless day and no honey gathered the shrinkage during the 24 hours until next morning would seldom exceed 10 per cent. of the amount of shrinkage of the first 12 or 14 hours. Thus if the scales showed at night that 10 lbs of nectar had been gathered that day, they would in the morning show a loss during the night of 2 1-2 to 3 pounds, but if that day should happen to be a flowerless one the following morning would reveal a loss during the 24 hours of not to exceed from one-quarter to one-half pound. This shows almost conclusively that nearly or quite nine-tenths of all loss of weight caused by curing of newly gathered honey in the hive occurs during the first 12 or 15 hours after it is first deposited in the hives.

As soon as these observations had been repeated enough times to convince me of their accuracy the question suggested itself to me: "From where comes the large gain in weight of honey supposed to be obtained by extracting every few days before being sealed over?" and that question is yet unanswered. Many other observations made while in Cuba and since returning to Florida seem to strongly corroborate the idea that little or nothing is gained by extracting unsealed honey. I will not give these points but may do so some other time.

If the conclusions I have come to are correct isn't it a serious mistake to teach that much more weight of honey can be obtained by taking out unsealed honey than by waiting until honey is in right condition to take? Some unscrupulous person will be sure to try taking advantage of that supposed fact.

Fort Pierce, Fla., Aug. 11, 1904.

AUTUMN HONEY PLANTS.

By Bessie L. Putnam.

WHILE these are not, with one or two exceptions, sufficient to make any perceptible difference in either quantity or quality of honey stored, they have an important mission in that they keep the bees in good shape during the fall without drawing upon the honey stored. The board of a family for two or possibly three months as a free offering for the taking is certainly well worth looking after.

Among the half century of goldenrods there are, perhaps, a dozen which abound everywhere in fence-rows and waste places, rapidly increasing in strength and floriferousness and yielding honey in sufficient quantity to give a distinctive flavor to the nectar in store. It is of a rich amber color and has a rank flavor at first; this mellows as the ripening process advances and it is eventually fine flavored.

The multitude of asters which bloom in autumn also help to prolong the working season. There is a tall-growing plant in pastures and waste places having a dark purple cluster of flowers known popularly as iron weed, which yields some sweets. By the way, this like almost all the other late bloomers, belongs to the immense family of composites, distinguished by having each seeming small flower made up of numerous tiny florets, sometimes all alike, again the outer ones having long rays, like the daisy and mayweed. The ironweed belongs to the first group.

Among other honey plants of this group may be mentioned the various thistles, even the despised Canada thistle, one of the most troublesome pests to the farmer, has a redeeming quality in that it is food for the bees. This, however, should not be entered as a plea for its preservation. The tall boneset or thoroughwort, an old-time remedy for fever, the common ragweed of the corn field, fireweed, which so quickly fills up places made vacant by the cremation of logs or stumps, the gay, yellow coreopsis which brightens the autumn swamps; even the despised Spanish needles, which cling to the clothing of all passers-by, are eagerly gleaned in the autumn days.

The touch-me-not, which scatters its seeds in all directions when touched, is another swamp denizen of value. Some of the mustards bloom until late in iutumn. St. John's Wort, vervains, several of the smartweeds, and hound's ongue are among the weeds which swell the list in the last days of pasturige. Some of these are worthy of proection; others are vile weeds. But vherever their place, they have their ise.

Conneautiville, Pa., Sept. 12, 1904.

ANCIENT BEE LORE.

By Arthur C. Miller.

SOME THREE hundred years ago there lived in Wotton, Eng., one Charles Butler, a bee-keeper and bee-lover. He has left us a most iteresting account of his knowledge, elief and practice and of the queer iperstitions held about bees in that iy.

The title page to his book reads:

THE
FEMININE MONARCHIE;
or,
THE HISTORIE OF BEES.
Shewing
Their Admirable Nature and Properties,
Their Generation and Colonies,
ieir Government, Loyaltie, Art, Industrie,
Enemies, Warres, Magnanimitie, &c.
Together
ith the right ordering of them from time
to time: and the sweet profit arising
thereof.

Written Out of Experience
By
Charles Butler, Magd:

Plant: in Trucul: Act: 2. Sc. 6.
iris est oculatus testis unus, quam auriti
decem.

London:
1623.

t is a quaint old book where "U" is ed for "V" and vice versa, where "S" ks like "F;" where the spelling is d and old English words are used, it sadly puzzle one not accustomed ancient writing. The text is full of tin quotations and one or two from Greek.

he pages have wide margins with many notes and cross references, but there is no numbering as we now use it. There are a dozen or so wood cuts, as well as four pages of music most oddly printed, the upper half of each page being printed so as to be read from the top, i. e., upside down to the rest of the text.

The book bears witness to his enthusiasm, which is scarcely surpassed by that of the most ardent bee crank of to-day. He possessed quite a fair knowledge of the anatomy of the bee, of the various sexes, etc., but did not know that the queen was the mother of the colony, believing that the workers fulfilled that office. Pollen is called Ambrosia or "grosse honie" but its use seems to have been understood. The securing of the honey, the different grades and its care are treated at much length.

Practices which we of this generation have hailed as new, were common with him then and he even had drone traps and used them to rid his hives of obnoxious drones. He discoursed on the economy of drones as heat producers for brood rearing, treated fully swarming, after swarms and artificial swarms.

After reading the book through and comparing it with those of to-day, one is bound to confess that in matter of arrangement and cross reference it puts to shame many of the later ones and that in knowledge we are not so very far ahead of those old bee masters of long ago.

Providence, R. I., Sept. 15, 1904.

HOME-MADE QUEEN REARING DEVICES.

By E. F. Atwater.

DURING the past winter I sent for samples of various styles of wood cell-cups, and nursery, hatchery, and pre-introducing cages; and, after some little study, I evolved a cheap and simple cell-getting nursery, and introducing outfit that anyone can make at home, yet in all essential features, there is no better.

To make the wooden cell-cups, get out strips 3-4x5-8 any length desired. With a compass, mark off every 3-4 inch. Then at each mark, bore a 7-16 hole into the wide side of the strip, boring nearly through. Then with a mitre-box, saw the strips into pieces 3-4 long, each having in the middle a 7-16 hole. Now you have the blank cell-cups, 3-4x3-4x5-8 thick. To prepare them for grafting put some nice clean wax or foundation in the sun, until soft. Roll up a little wad of wax, force it into the 7-16 hole and press the forming stick into it, using a slight twisting motion. Make the depression 5-16 deep.

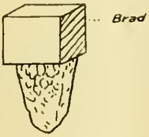
Dipped cell-cups (a la Root) can be pressed into the blocks if so desired, or the holes may be filled with melted wax and set away until needed. When, by setting them in the sun the cups may be formed as before.

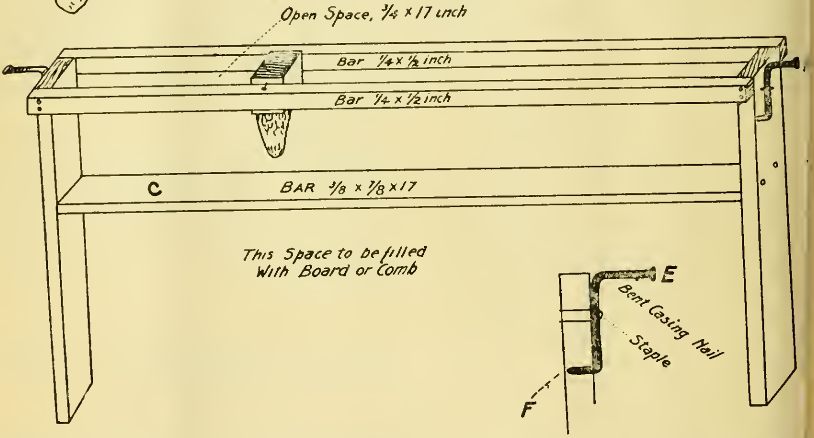
The cut "A" shows such a square wood cell-cup, after being accepted and completed by the bees. Notice the head of a brad projecting 3-16 inch from the side of cell cup.

For a perfect cell holding frame get out two end-bars of usual length and full 3-4 inch wide, by 5-16 thick. Two inches from the top of each end-bar, nail in a bar 3-8x7-8x17, as shown at "C." Instead of a top-bar, nail on each side at top of frame, a strip 1-4x1-2x-17 5-8. Nail on a bottom bar, or not, as desired. Attach to each end-bar an 8-d finishing or a 6-d casing nail, bent as shown at "D," and better shown at "E." The point "F" is driven through the end-bar, and a small staple is set straddling the nail, and driven through the end bar and clinched. Thus we have a perfect non-propolisable support for our open top holding-frame (This support was invented by M Thos. Chantry, of Cal.)

The space below bar "C" may b filled with comb or a board may b cut to fill the space, as preferred. No fill in the open space (3-4x17) betwee the 1-4x1-2x17 5-8 bars, with wood cel cups, waxed ready for grafting. Th cups hang by the projecting brad which you have driven into each blan cell-cup, about 1-8 inch below the to of the cup. Place the holding fran and cups in your cell-starting color and remove the cups, one at a tim graft, and replace. This puts each ce as soon as grafted, in the care of th

A



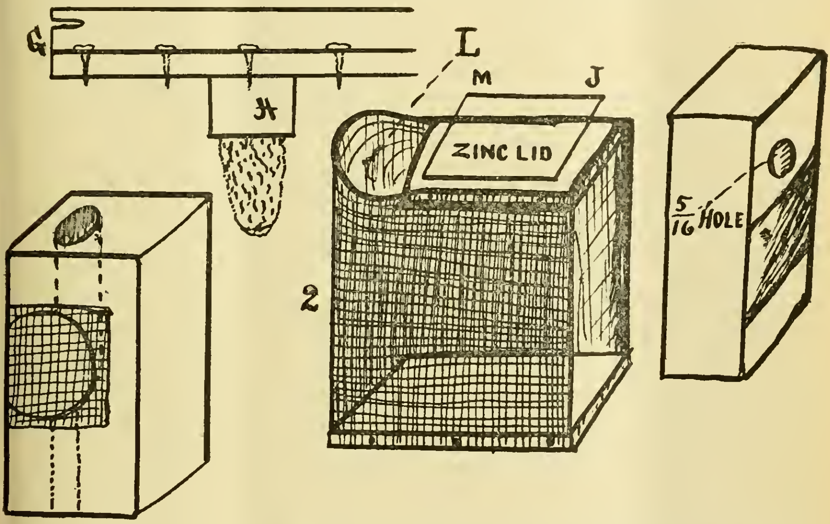


bees, instead of waiting for an en e stick of cells to be grafted. There s no need to remove a frame when u want cells, simply roll back the q t and draw as many as desired.

For those who prefer to g t an entire stick of cells at once I h e another plan, which I have found g l. Get out a stick scant 1-4 thick x3-4 7. Drive through it, every 3-4 of an i , 3-8 inch fine, sharp-pointed, wire n s. Now on top of the heads of these n s, nail on a strip 3-8x3-4x17 and cli h the three or four nails passing thro h both strips. In the ends of the -8 stick cut sawkerfs as shown at ". These bars may then be hung i a frame having staples in the inner s s of the end-bars a la Stanley, or by any other method in use. Attach the wood cell-cups by forcing them on to the projecting points of the 3-8 nails, as shown at "H."

Now for a cheap and perfect hatchery, nursery, and pre-introducing cage: Get out pieces 3-16x5-8x1, 1 5-8x5-8x-3-16 and 5-8x5-8x1 5-8. Also some pieces of wire screen 2 1-2x4 3-8. Fold over each edge 1-4 inch making the pieces of screen 2x3 7-8. Also get out pieces of tin or zinc 3-4x7-8, and 1-2x5-8. Attach the pieces of zinc, 3-4x7-8, to the bits of wood 3-16x5-8x1, so that in the completed cage as shown at "2," the zinc "M" will act as a button, to open or close the opening "L." Nail the screen to the blocks as shown at "2" and "J," "K." This leaves and pening about 5-8 square, at "L' and nother, about 5-8x1 5-8, between "J" nd "K." Bore a 5-16 hole through the lock (5-8x5-8x1 5-8) near one end. Vith a single small nail attach a zinc r tin (1-2x5-8) so that it can close this ole, or not, as desired. This 5-16 hole s to be filled with candy, and the lock through which it is bored must it the large opening of the cage (beween blocks "J" and "K") forming a emovable plug or stopper. The day efore your cells are ripe lift them out f the holding frame, and stick the oint of each, into opening "L" of the ursery. Hang the nuseries in a holdng frame, or attach them to the side of comb, by thrusting a 4-d fine nail through the wire cloth of the cage, into the comb. When the queens have emerged, the empty cells, if needed, may be removed empty and the zinc lid or button turned so as to close the opening "L." This nursery is equally good for the round "Swarthmore" cups, Root's round cups, my square ones, Hill's separable cups, or ordinary natural queen cells.

For those who like a block nursery, I have the most perfect yet made, and is at the same time a fairly good mailing and introducing cage. Get out blocks exactly 7-8 thick, x1 3-8x2. With a Forstner bit, bore a 1 inch or 1 1-8 hole nearly through. This hole is bored a little to one side of the middle so as to leave an opening about 3-4 inch square on edge of blocks, as well as the inch hole in the side. Now, in one end of the block, bore a 1-2 inch hole, connecting with the 1 inch hole. In the other end bore a 3-4 inch hole, to meet the 1 inch hole. Attach a bit of tin or zinc so as to cover or open the one-inch hole (for candy). Tack on a piece of screen 1 1-2x2, so as to cover the one-inch hole, and also the opening in the edge of the block. This nursery is adapted to all styles of wood or other cell-cups, and with slight change, to natural queen-cells, and is superior to the Swarthmore separate nursery, and pre-introducing cage, as it has an opening on edge of cage, as well as on the side, and can be placed flat-wise between two combs, yet the bees can be-



come acquainted with the queen through the screen-covered opening on edge of cage. My square cell-cups are also perfectly adapted for use with the Bankston nursery, as described by Bankston, Lewis and Pharr. At this date, I have tested all these things and found them good. Of course, these are simply modifications of the ideas and improvements of Alley, Swarthmore, Titoff and others. In my next article I will describe the Bankston Baby nucleus, which I am now using, and mating as large a per cent of queens as by any modern system.

Boise, Idaho., June 12, 1904.

TUNISIAN, OR SO-CALLED "PUNIC" BEES.

By Frank Benton.

IT will be twenty years the coming winter since I first went from my central location, at that time Munich, Germany, across the Mediterranean to Tunis, in Northern Africa, and investigated the race of bees native to that part of the world. The following winter I made a second journey to the same region. During my stay I traveled about to some extent in the Province of Tunis and secured for extensive planters there large numbers of colonies of the native bees, and for some weeks busied myself in transferring these into American frame hives and extracting the beautiful rosemary honey which is produced in great abundance there the latter part of the winter and during the early spring. Naturally, as I was extensively engaged at that time in the rearing of queen bees of various races, having queen-breeding apiaries in Cyprus, Syria, and in Carniola, Austria, as well as in the central depot or collecting apiary in Munich, Germany, I became at once greatly interested in the bees of Tunis, which I soon saw possessed some very peculiar and remarkable traits. I sent some queens to my home apiary in Munich, and took others with me for comparison to the eastern apiaries. The latter were introduced into colonies of Cyprian and Syrian bees, and all drone production controlled. I was able, therefore, to avoid any intermixture of the Tunisian blood with the Cyprian and Syrian races in the native land. At the same time I had the black Tunisians to compare with the yellow eastern races. Some of those who received my price-list at the time may, perhaps, recall the fact that in those years I offered these queens for sale at the same rates charged for Cyprians and Syrians, and that I stated in this price-list that "Tunisians are the blackest bees I have ever seen, are excellent honey gatherers, and easy to subdue by the use of smoke."

The interest which Mr. John Hewitt, of England, exhibited in various foreign races of bees, and in the general work which I was conducting, led me to forward to him from time to time a choice specimen of any new race which I found, and while he frequently favored me with orders for queens of various races, I did not charge him for specimens of new races sent in the manner just described. It was in this way that he first procured the Tunisian bees, which he now calls Punics. It would appear to me that he might well have mentioned this fact in his article in the American Bee-Keeper, for September, 1904, Volume XIV, No. 9, pp. 180-83, instead of conveying the idea, as he does, that he was the original discoverer and importer of the bees, his simple statement being: "This bee I first imported in 1886." One might pass this by, however, and in fact the whole article itself, were there not more violent misrepresentations and inaccuracies contained in it.

In the first place Mr. Hewitt states that Mr. D. A. Jones, of Canada, spent large sums of money in trying to import Apis dorsata. It is true that he spent some money, but the impression conveyed by Mr. Hewitt is best corrected, and the omission supplied, by quoting from an article of mine published in Gleanings in Bee Culture, June 15, 1892, Vol. XX, No. 12, where, on page 450, occurs the following:

"I wish to ask the indulgence of my readers to enable me to correct an error connected with the subject, but the original source of which I do not know. It first appeared long ago, and has been repeated frequently—even in books on bee-keeping. I refer to the statement that "the first expedition after Apis dorsata cost Mr. D. A. Jones, of Canada, a small fortune," and that in this undertaking I "was the agent of Mr. Jones." The facts are, the expedition cost less than $1,000; I was in partnership with Mr. Jones in this work, and it cost me just as much as it did him; moreover, as Mr. Jones did not go to India, but was in Canada at the time, I had the hardships of the work, and the illness which followed my exposure in the jungles, to bear."

I have never seen the statement attributed by Mr. Hewitt to Mr. Jones, nor, for that matter, coming from any-one else, that it was expected Apis dorsata "would produce lakes of honey," nor have I ever known of any person who seriously entertained the idea of establishing a new breed of bees through crossing Apis dorsata with Italians or any other race of Apis mellifera, the new bee to be called Apis Americana. In the article in Gleanings for 1892 just quoted, I made the statement that "an effort would be made to produce and test various crossess between dorsata and mellifera," and this was followed by the statement "if such crosses can be obtained, possibly something more valuable than either of these bees would result." I believe that I made a modest statement in this article of what might possibly result from the introduction of these bees into the sub-tropical portions of the United States. These statements were based upon my own practical experience with Apis dorsata in India, and since I was the first practical bee-keeper to go out there and manipulate these bees in their native land, and clear up some of the disputed points regarding their habits, such as their alleged wildness under manipulation, their building their combs horizontally instead of perpendicularly, and the remarkable tendency which was ascribed to them to desert any habitation in which they might be placed, it seemed quite proper that I should be allowed an expression of opinion as to what the possibilities are in connection with this species. Whatever idea, however, Mr. Hewitt or anyone else may entertain concerning these possibilities, I still adhere to the belief that their final determination, one way or the other, is work well worth undertaking.

Mr. Hewitt seems to think that the sending of Tunisian ("Punic") bees to India is something better than importing Apis dorsata from India. Very possibly. I will not discuss that at this time. However, since on my journey to India in 1880, I took out colonies of Cyprian and Palestine bees which have since thrived, swarmed, and stored considerable surplus honey, and have not died out, as Mr. Hewitt states regarding all bees other than his pet "Punics," the credit for the introduction of Apis mellifera can easily be placed. But hold! Mr. Hewitt says that the Punic bees belong "to the genus Apis nigra." His use of the expression "genus Apis nigra" betrays his total ignorance regarding zoological nomenclature. He does not seem to know that the generic name is Apis, which is precisely the same as the generic name of Italian, Black, Cyprian, and all of our races now cultivated in Europe and America. Moreover, he seems to think that he can, because this bee happens to be very black in color, immediately apply to it the specific name nigra, without giving any technical description of the characteristics which distinguish it from other species. Entomologists have never heretofore recognized such a species, and the mere publication of the name would, according to the established laws of zoological nomenclature, stand for nothing.

But more astounding statements follow. Mr. Hewitt says "these bees are proof against foul-brood." The astounding part of this is seen at once when I state that foul-brood is of frequent occurrence over the whole area of northern Africa from Egypt westward. He follows this by stating that if hives are large enough they will not swarm. They cast numerous swarms in their native land, although the hives are full larger than those used in Cyprus, where the bees swarm less. When I state the fact that I have seen and counted in a colony of these bees preparing to swarm from a native hive in Africa 350 well-developed cells, I believe any practical bee-keeper will be prepared to subscribe to my statement that the size of hive bears the same relation, as regards swarming of these bees, that it does to other races. For Mr. Hewitt to write in this day and age, "they are the tamest bees known" argues that he has hardly kept pace with information regarding other races, for in this particular we must yield the palm to the bees of the Caucasus, in Russia; next to them the Carniolans, from Austria; and even our selected and carefully bred Italians in America are certainly "tamer" bees than Tunisians. When one approaches an apiary of the black bees of northern Africa, he is very likely to be unpleasantly assailed, even at a distance, and at certain seasons it is quite impossible to go near the hives without a beeveil. Let me compare this statement with one concerning my four years residence in Carniola, during which time I handled hundreds of colonies, both in my own apiary and in native apiaries at all times of the season, and under all imaginable conditions, even at night, and during the whole period never once used a beeveil, nor felt seriously the need of it. In all the twenty odd years during which I have cultivated this race, I have never, when only pure Carniolans were in my apiary, had occasion to use a beeveil in their manipulation. I am certain that I could not possibly manage even a small apiary of Tunisians without restoring to vast quantities of smoke, and probably a beeveil—at least with any degree of comfort.

The statement follows in Mr. Hewitt's article that the "Punics are just the bees to produce honey in the greatest quantity with the least trouble." I have myself stated repeatedly that they are excellent honey gatherers. The proof of that I found in the quantities stored by them in their native land, and with my tests with them in other countries. At the same time I pointed out that they were the very worst race that could possibly be selected for the production of comb honey, as they were so lavish in the use of propolis as to disfigure greatly the combs and sections, and also because they seal the honey so that it presents a very watery appearance. My experience does not at all verify the statement that the quantity of honey yielded by them is produced "with the least trouble," for since they are really rather bad tempered, spiteful bees, and since during the greater period of manipulation a beeveil is required, as well as great quantities of smoke, both time and comfort are sacrificed in obtaining the honey yield.

I see no reason to change materially the general statement of the qualities of these bees which I gave in 1892 in the American Farmer, then published at Washington, D. C., and which was quoted by Gleanings in Bee Culture for July 1st, 1892, Vol. XX, No. 13, page 504. The paragraph is as follows:

"Another race of bees has recently been advertised under the name of "Punic" bees, the queens having been offered at from $1.50 to $50 each. The former price is for unfertilized queens; $5 is asked for fertilized queens, $10 if purely mated, $40 if selected, and $50 for such as are said to have been imported from the native land of this wonderful new race, which, according to the claims of the advertiser, unites all the virtues that one could possibly imagine as belonging to bees, with none of their faults. As the writer happens to have been the first to call attention to this new race of bees under the far more appropriate name of Tunisian bees (Tunis being the native land of the race), and as he has had considerable experience with them in Tunis, and also in several other countries, he may be allowed to express an opinion as to their merits and demerits. The former are soon told, for the Tunisians (or Punics) are industrious and prolific, somewhat more so than any race of bees coming from Europe, but rather less so than the eastern Mediterranean races (Cyprians, Syrians and Palestines). But their faults make a list. They are small and very black; are spiteful stingers, as vindictive as the worst race known; bite in addition to stinging; are great propolizers, daubing hives, sections, and combs lavishly with "bee-glue;" they swarm as much as do Carniolans, and winter as poorly as do Palestines. Most people will think the genuine imported queens a trifle extravagant at $50 each, especially those who remember that in 1885 and 1886, just such queens were offered at from $4 to $10 each, direct from Tunis, northern Africa. Millionaires who keep bees will, of course, buy "Punic" queens at $50 each for all of their hives, although they wouldn't look at Tunisians a few years since at $4 to $10. But the rest of us will plod on with bees whose queens cost us $1 to $5 each, and that are chiefly noted for giving us honey, money, and pleasure in handling them."

In the article under consideration there are further statements which require criticism. Mr. Hewitt says of the common East Indian honey bee, Apis indica, that "they will not on any account accept any queen of any European race, and even if it could be done the queens could not lay eggs in their combs as the cells are too small." In the course of my work in Ceylon with this species (indica) I had occasion to introduce a queen of the species Apis mellifera to one of these colonies. She was not expected to lay eggs in the worker cells (36 to the square inch) built by the Apis indica colony. The eggs, however, to produce worker bees of the species mellifera, were laid by this queen in the drone cells built by the colony of Indian bees. If Mr. Hewitt's practical experience had extended a little further than the confines of an island about the size of Alabama or North Carolina, a kingdom whose area is less than that of Michigan, and but slightly larger than the State of New York, he would have been less ready to make such positive assertions as to what could or could not be done with other varieties and species of bees in lands thousands of miles away from his own country where all conditions are radically different. He would, in fact, have been less dogmatic. I will not venture to assert that one can generally be successful in introducing queens of the species Apis mellifera to Apis indica, as my experience is not extended enough to enable me to do this. I merely state a fact and leave the general law to be based on more numerous instances.

Mr. Hewitt states that Tunisian queens "never attempt to mate until about 20 days old." In certain of their qualities I found the Tunisians to bear a resemblance to oriental races of bees, and it may be laid down as a general rule that all of these races defer mating longer than do the queens of European races, so that it is a common occurrence to find Cyprian, Syrian and Palestine queens awaiting until the tenth,the twelfth, or even the fourteenth day before mating. It is, however, exceedingly rare for them to delay beyond this period, and I have reason to believe that the Tunisian bees are even less inclined than the bees of more eastern Mediterranean countries to delay in mating. I seriously doubt the accuracy of the statement made by Mr. Hewitt to the effect that "they will mate all right at over three months old," at least if he means thereby to indicate that they will mate and be valuable always after that period. I am well aware that queens of the oriental races stand confinement for a longer period than those of other races, and will mate at a later date in their existence, but I have not found it advisable or practical to keep virgins that I wished to have develop into valuable queens caged longer than two weeks.

Mr. Hewitt, much to my surprise, in closing his article, makes statement of a fact regarding peculiarities of the Tunisians which would form sufficient reason for many bee-keepers to utterly reject the race. And, notwithstanding his statement of the fact, it is nevertheless true. I refer to the following: "If you remove a queen and then on the tenth day cut out every queen cell, fertile workers will at once fill all the combs with eggs." Think of that! Ten days after the removal of the queen you get all the brood combs of your hive filled with drone eggs laid by workers! But I will go a step further than Mr. Hewitt, and will state that oftentimes, upon the removal of the queen, before the ten days have expired, and before any queen cells have been removed, vast numbers of eggs will be laid by workers in the worker brood-combs. I have never known them to rear a queen from any of this brood. It is true they frequently start cells on such brood, but a dead drone is found in the queen cell later.

In referring to the introduction of these bees into various climates, Mr. Hewitt says: "They have made themselves at home in every country, no matter how hot or how cold," and he also conveys the idea that anyone who has once tried them is sure to pronounce them superior to any and all other races. I also recall that Mr. Henry Alley said of them, in 1891, as quoted by Mr. E. L. Pratt on Page 810, Gleanings in Bee Culture, for October 15, 1891: "They will supersede the Italians." Notwithstanding all the efforts to bring these bees forward prominently, and get them established in this country, does Mr. Alley still hold to this view? Does Mr. Pratt subscribe to it? Has anybody in this country any pure Tunisian ("Punic") bees at the present time? My own belief is that we have far better bees, far gentler bees, bees that are equally prolific, that gather less propolis, that are handsomer, that are less inclined to make unprovoked attacks upon people passing through or near the apiary, and that in general may be manipulated and managed for profit with equally as good or better results, and far more comfort. I do not believe the introduction of bees from Tunis will be a benefit to American apiculture.

This whole subject, in my opinion, as presented by Mr. Hewitt, is enlarged quite as much as the statements which he once made in print concerning the settlement of the problem of mailing queen bees on long journeys.

He said that he, together with Mr. Benton, settled the whole problem of mailing queens. Yet, as a matter of fact, not one single suggestion in the way of form of cage, the food, or any other point suggested by Mr. Hewitt was either practical or available in the final settlement of that problem, and I hold in my possession a letter written by him in which he criticizes me for "not being willing to adopt any single suggestion which he made on the subject." I cite this merely for comparison to show with what a large grain of salt, and, in fact, with how many grains of salt we must take such wild statements as appear over the signature of Mr. John Hewitt.

Washington, D. C., September, 7, 1904.

SCIENTISTS FROM ABROAD.

Russian and German Commissioners Investigate Methods of Bee Culture in the United States.

By M. F. Reeve.

THE Russian Government, in the midst of "war's rude alarm," still finds time to pursue scientific researches. All summer, Professor A. Tethof, a distinguished scientist, has been traveling in the United States, investigating the American method of bee culture. He has made a particular specialty of the production of comb and extracted honey.

He will probably remain in the United States another year, continuing his quest for information. This is embodied, from time to time, in reports to the Minister of Agriculture at St. Petersburg. The government will avail itself of the results of these reports for the general benefit of the agricultural classes of the great Russian empire.

M. Tethof, who is a scholarly looking individual of German aspect, has impressed those with whom he has come in contact with the breadth of his knowledge on the special subject which he has been pursuing.

He has visited all the large apiaries during the summer, particularly those conducted by the A. I. Root Company, of Ohio, and the plants of the Coggshalls and Alexander, the extensive producers of extracted honey in New York state.

He has been wonderfully impressed, and astonished even, by the up-to-date, rapid-fire methods of the Yankee bee man and has made voluminous notes which will be of service to him later on.

M. Tethof has also secured many photographs illustrating the various stages of handling bees and their products.

He says Russia is such a vast country, with such a diversity of climate, that he can compare his to no other country except the United States. Enormous stretches of forest and plain exist on which a bee-hive, or even a bee, can not be seen. Even Siberia, formerly supposed to be the land of snow and ice has a genial climate during certain months, when many plants capable of yielding honey abound. Yet colonies of bees are few and far between and throughout Russia the appliances for housing and handling bees and honey are of the most primitive description. There are more log hives than anything in use. Yet, in spite of all drawbacks, honey is an important article of food, and millions of pounds of chunk honey are consumed every year.

The Government desires to introduce American methods and American machinery into the bee industry as much as possible to increase production and a campaign of education will follow M Tethof's investigation.

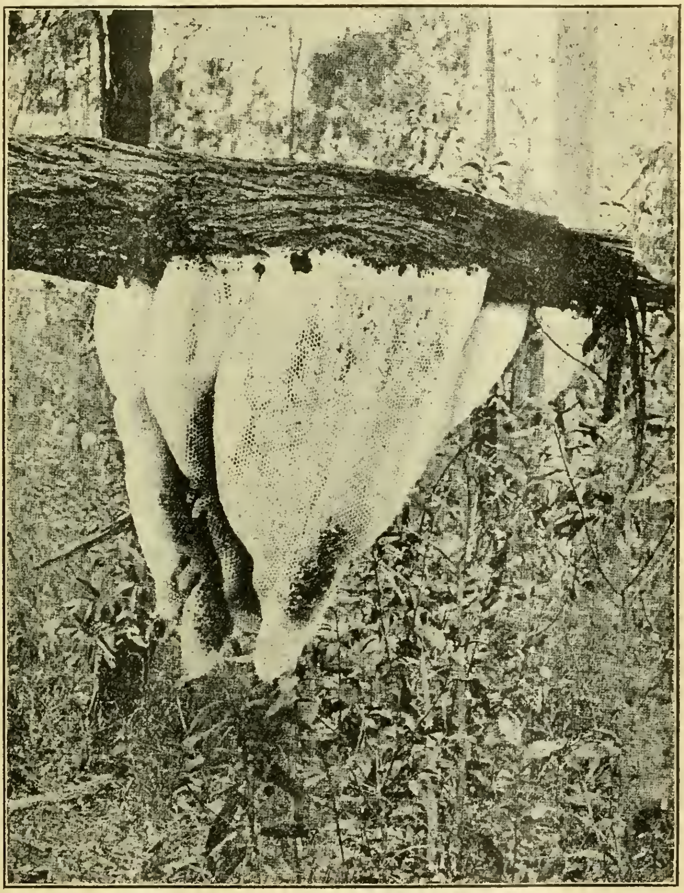
He was recently the guest of E. L Pratt, the queen breeder of Swarthmore, Pa., who gave him every facility for taking notes of his method of breeding queens in nuclei of a handful or so of bees. The Russian was astonished at the results. He will probably take up his residence in Philadelphia for the winter and attend a special scientific course at the University of Pennsylvania, having been very favorably impressed by the cordiality shown to him everywhere and anxious to improve the opportunity afforded by his stay.

Another distinguished visitor who will make his appearance in this country soon, is W. A. Hass, attached to the Academy of Natural Sciences at Berlin, Germany. He comes as a special commissioner to investigate Yankee methods of bee culture.

It seems that the German bee-keepers are awakening to the fact that the Americans by their superior methods of housing and handling bees for producing comb and extracted honey have captured much trade which the Germans formerly monopolized.

The German Government, through its Agricultural Bureau, wants to find out how it's being done and sends Mr. Hass over here to look around and gather points. The result will be the discarding of antiquated makes of hives and the substitution of American hives and furniture, it is predicted.

Rutledge, Pa., Sept. 13, 1904.



AN OPEN AIR COLONY.

In last issue I gave a picture of a very large colony of bees working in the open air on the limbs of a lemon tree. Certainly the limbs and leaves of the tree offered considerable protection to the bees. In this issue I give a picture of a colony working, aye, thriving too, on the underside of an ironbark log that had fallen across a gully. The photograph was snapped by Mr. H. L. Jones, of Goodna, Queensland, at a short distance from his apiary during one of his rambles through the bush. I have no doubt such a colony would winter easily in Queensland, but I should think there would be greater risks in summer from the heat. Mr. Jones says that "It was about ten feet from the ground and quite exposed to the sun and rain. I knew of its existence for some time and was unable to get an opportunity to photograph it until the bees had swarmed as you will note they did from the queen cells showing on the edges of the comb. It must have been a strong swarm capable of covering all the outside combs, otherwise they would certainly have melted down." Mr. Jones, when speaking to me about the swarm, regretted that he was unable to take the photo before the swarm issued, but I think the swarm is more interesting as it is, showing that they can thrive in the open. A close examination of the picture will show that it is still occupied by the number of bees to be seen on the comb.—Australasian Bee-keeper.

NOTES IN GENERAL.

By O. C. Fuller.

The Season, Etc.

EDITOR BEE KEEPER: Sometime ago my son subscribed for The American Bee-Keeper and of course I read it too, and like it very much.

The past winter was the most disastrous on bees I have ever known in my eighteen years of beekeeping, having lost over half of my colonies by the time settled warm weather came in the spring.

We have had an excellent honey flow so far this season and I have about filled up the vacant places (made by the past winter in my yard) with swarms; and swarming still continues. In fact, we have almost a continuous honey flow from April till frost, and of course have the attendant swarming. Last year I had swarms come off up to Sept. 1.

Buckwheat,

Large quantities of buckwheat are grown in this section, and I have never known it to entirely fail to yield honey; and as sowings are made any time from the first of June to the last of July, the honey flow from it is consequently extended over several weeks, hence the bees swarm sometimes more than they do during clover bloom. Buckwheat swarms are always cross and hard to handle and while not desirable, often gather enough stores for winter, and by the aid of full sheets of foundation, can be made into good colonies for winter, and the young queens raised in the parent colonies make the very best for next season's work.

Handling Swarms.

In casting about for something to hold back a swarm that has started to issue when a swarm is already in the air, I discovered that the only thing that would stop them from coming out was to dash a pail of water over the frames, so that the water will run down through the bees. This seems rather severe treatment, but it is a sure cure, and will effectually dampen their ardor for the time being and they will forget all about swarming for that day.

The use of water, as above, has saved me from many a mix-up when swarms were issuing one right after the other.

Bee-keepers "Too Previous,"

Wonder what has become of those formaldehyde—foul brood—cure shouters? Have they crawled into a hole and pulled the hole in after them? Ah, yes I see they have been in the hole but have come out again and have downed the new cure, at least the Ohio Bee-Keepers Association has done so.

Aren't we bee keepers "a little too previous" in shouting before we have given a thing a thorough trial?

We are too apt to begin shouting and to rush into print—when we see an apparent result without waiting long enough to fully test it. And when one begins to shout many will at once jump up and follow in his wake, only to end in failure and disappointment. So it has been with the formaldehyde foul brood cure. I have been through the mill and know what I am talking about. Someone says the cause of your failure was that you did not have your tank tight enough.

Well I had my tank so tight, that in placing my mouth over the hole in the lid and blowing into it the air would force back on removing the lips from the hole like it would from the bung of a barrel. Then some other fellow goes to the other extreme and says "You must let plenty of air into your tank so that it will unite with the gas and form formic acid." Then I tried it that way and occassionally raised the lid, and with my big straw hat fanned air into it with a vengeance but the result was the same—failure! Every colony that I treated with the gas was apparently cured, as the first batch of brood would be evenly sealed and seemed to be healthy. But, when the queen would lay in the cells vacated by the first batch of young bees, the disease would again appear with all its virulence.

In talking with foul brood inspector Stewart of New York State, he intimated that the gas treatment might be all right with scientific and experienced bee-keepers but that it would be a failure in the hands of the common run, so I have settled down to the conclusion that, when a colony is found infected, immediate destruction is the safest course to take.

Yes, we bee-keepers are very apt to chase after every ignis fatuus that comes along, only to regret it—after we take time to look around and see where we are at.

Then let us make haste slowly in chasing after every new-fangled thing that so frequently bobs up above the bee-keeping horizon.

Turbotville, Pa., Aug. 8, 1904.

KEEPING DOWN AN EXCESS OF POLLEN.

By C. S. Harris.

DEACON HARDSCRABBLE wishes I would tell of some way of keeping superfluous pollen out ıf the hives. This is something I have ıever sought to do, for in those cases vhere it was crowding the brood-nest, vhen brood was most desirable, I have emedied the trouble, to some extent t least, by an exchange of combs.

To tell the truth, I have never yet ound it necessary to remove any pollen from combs, although this locality s strong in pollen, for the bees manage o make use of it in the course of the eason.

I have run up against more than one eason of late when nothing but pollen vas being stored, and I assure you I velcomed it, even if in undue quality, or I have learned that sugar syrup s not a complete food, but when ounded out with pollen will answer its urpose. And bees are better engaged n bringing in pollen than in nosing round for mischief.

The use of perforated metal at the ntrance of hives, when pollen was oming in too freely, might give some elief, as many loads will be scrapped rom the pollen baskets as the bees nter.

Holly Hill,Fla., Feb. 12, 1904.

Bees Make Record.

Cross Mills, Pa., July 29.—One of he best harvests of honey ever reorded in Berks county, was made by he veteran bee-keeper, John Dieffenack who is considered one of the best ee culturists in this country. From our colonies of bees he extracted a uarter ton of honey.

The bees are known as Italian bees. -Philadelphia Inquirer.

HARDSCRABBLE LETTER NO. 2.

A-h-h-h-h

"Swift as thought the flitting shade
'Thro' air his momentary journey
made."

Yes, I can flit when I have to, but I don't have to, don't want to and don't. The trouble is with you uns. You get nervous. Now nerves are a nuisance, most wuss nor a super-sensitive conscience. Oh you needn't run over in your mind a list of the boys to see who has one. It would take too long and the final collection would be blamed small. Consciences interfere powerful bad with the "borrowing" practice, cause troublesome memories, and generally make transgressors uncomfortable for which reason, Harry, you will find most of the boys keep there's locked up at least six days in the week. Talking of consciences just naturally leads to drink. (Please pass some of that lemonade of Popp's.) Why? Oh I can't bother to say. But that Hewitt chap trying so hard to introduce Punics to we uns when we uns won't have 'em arouses my pity and I thought that you were trying to help him out by quoting that article from the "Field." Geewhillikins, Harry, didn't you see those Punics went to India in a "Holland's gin case" and when they got there "were fed a stimulating syrup." Now bees as lives in gin cases and take stimulants need never expect to be received by the "elect" of these diggings. Never for an instant, my boy, for 'twould spoil their gold brick trade.

From the looks of the trail of Swarthmore's queen and drone one wonders what kind of stimulating syrup they had, Holland, Flip, Julep or what? What is your favorite, Brother Swarthmore? Mine's Julep.

Let's see "stimulating" is the keynote of the feeding habit. I just wonder where the boys got the idea. You don't 'spose 'twas force of habit, do you?

Well, my pipe's gone out, so I guess I'll be "flitting" A-h-h-h-huh!

The Southwestern Bee Company, H. H. Hyde, Sec'y., 438 W. Houston St., San Antonio, Texas, is a new subscription agency at which patrons of The Bee-Keeper may enroll.

THE
Bee-Keeping World

Staff Contributors: F. GREINER and ADRIAN GETAZ.

Contributions to this Department are solicited from all quarters of the earth.

GERMANY.

Drone Laying Queens.—Dickel says in Die Biene: The symptoms of a drone breeder are, "decrease in the number of workers and the appearance of small drones in constantly increasing numbers. Looking into the hive the brood is found irregular, the sealings convex. Some of the larvae are of an unhealthy appearance and perhaps some are dead. Eggs are scattering, a number of them found in single cells. These characteristics do not reveal anything about the origin of the eggs, for they may be laid either by a worn-out or defective queen, or by workers when the colony has been without queen or means to rear one for a long time. It has been taught till this, that queen bees always deposit eggs properly; i. e., securely glued to bottom of cell and standing on end, while eggs deposited by workers show up irregular. I found after making numerous experiments that a part of the eggs laid by workers showed up regularly, some otherwise and lying on their sides, attached to the bottom or sides of cells. The eggs from queens which had been prevented from mating, appear exactly the same. The eggs of normal queens wether they are worker eggs (fertilized eggs) or drone eggs (so-called unfertilized eggs) are always put into cells regularly (glued to bottom of cells and standing on end, inclined more or less). The fact that worker and drone eggs (fertile and unfertile eggs) laid by a normal queen appear the same, is a proof that the mating of the queen bee has also influenced the eggs which are to produce drones. And by the way, another proof is: Young, unmated queens continue laying eggs but for a few months, which mated queens continue for several years, (even laying drone eggs.)

It appears that we cannot judge as to the origin of the eggs from the manner the eggs are found in the cells, however we can form an idea from othe circumstances. It is of importanc whether we find irregularly laid egg in drone cells or in worker cells When worker bees begin to lay egg after the loss of a queen they use dron cells principally. In the absence o drone cells it requires a longer tim before the workers start any brood When a queen is present the bees behave normally. They prepare to rea worker brood and clean up worke cells only. The eggs, though in irregular fashion, are therefore found in them. To cure a colony afflicted, having a drone laying queen is simpl enough, for such will accept a ne queen after the removal of the old on as easily as any other colony. The will also accept a ripe cell or rear queen themselves from young broo given. A colony with laying worke is not so easily cured. New bloo must be infused first by giving comb of hatching brood. After that the young bees can be made to start cells

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A dictionary of apicultural terms one of the latest books out. Of cours it is in German, gotten up by Dr. Krancher, Leipzig; Two thousand fi hundred terms are properly explaine therein.

Wurth says in Die Biene: to mak bees amiable let them fill up on "ho ey" to avoid robbing; do not feed i spring but give enough in the fall t last till honey comes again."

Reidenbach advocates handling be during the early hours of the day. I the morning, he says, during June an July as early as 4 o'clock.

Even the advertisements in 'o foreign exchanges are of interest. I looking over the Lepz. Bienenzeitun we find the following articles etc., o fered sor sale: Honey-extractor whic works without can; foundation mol or small bee-keepers to make their wn foundation, queen bees of all inds, as the brown or German, the talian, Cyprian Carniolan, Northern r Norwegian, Red-clover queens, Ieath bees, crosses of all and any of he above named. There seems to be large business done in bees by the ound or swarm, particularly in Heath nd Carniolan bees. Bee hives are dvertised in large numbers from the traw-skep up to the most elaborate Pavillion." Even Dr. Dzierzon is still ı this business selling hives of any ind, but particularly his "twin hive." .mong other supplies we also find 'ood for brood frames. This is soft 'ood, sawed in strips about one inch 'ide and 1-4 inch thick. Tobacco adertisements figure quite prominently. count eight or ten sugar advertiseents, offering fruit sugar, uncolored eet sugar, crystalized sugars, malt ugar, crystal sugar free from sulhuric acid, etc. Honey is freely adertised, much more freely than in merica although comb honey is selom advertised, and perhaps little prouced. Different shaped glass cans or holding honey are offered by many rms. Some glass cans to hold as lite as one-quarter pound and up to five ounds. Many other things might be numerated, but we will let this suffice.

SWITZERLAND.

The district around Wynental is fflicted with foul brood. The rather adical means of destroying bees, ombs and all, except the hives, is racticed to eradicate the disease.

Foul brood is also reported from ussnacht, Solothurn and Berne.—chweiz. Bztg.

The question is asked in the same aper: "Why are queens from the first atch better than those of the second ne?" (Are they any better?)

The Schweiz. Bienenzeitung publishs the names of hotel and resorts here only genuine honey is served. A splendid idea.)

Spuehler tells in Schweiz. Bztg. of aving invented a reversible extractor; ne need of such, he says, has been elt a long time. His machine is mintely described and illustrated. Its onstruction differs from the Cowan.

BELGIUM.

Mr. C. P. Dadant writes to the Rucher Belge:

"At the beginning, there is no difference in the appearance of the diseased brood, whether it is foul brood, black brood or pickled brood. Later a considerable difference is seen. In cases of foul brood, the dead brood becomes brown, nearly liquid and of a glue-like nature, while in the other diseases it dries out completely to the extent of sometimes falling off from the walls of the cells.

"Last summer two of my neighbors had diseased bees. In less than a month the bees were cured through a treatment with oil of eucalpytus. The process was to put some wool cotton saturated with the oil in a small box with a perforated cover and put the box in the infected hive. The oil was renewed every fourth day until completely cured. I found the formaldehyde ineffective. There is no danger of getting foul brood from foundation. The melted wax impregnated with spores and entombed in a sheet of wax will never rise from the dead."

Frequently spring or well water contains some iron. If used in melting wax, the iron is liable to darken the was considerably.—Le Rucher Belge.

Mr. Gunther attempted to calculate the cost of wax in honey or sugar. He lodged a strong swarm on frames having only very small starters, added a comb of pollen and fed 15 pounds of sugar during the following two weeks. As the weather happened to be rainy the bees could not gather anything outside. At the end of the two weeks there was enough comb built to fill 11 half frames. The brood occupied six and there was about four pounds of syrup in the others, some of it capped. Counting the cost of sugar and the value of the brood, the cost of the comb contained in a frame would be only five cents. The size of the frame is not given. If it is the Dadant-Blatt the 11 half frames would be equivalent to about eight American L. frames. If it is the DeLayens, it would be considerably more.—LeRucher Belge.

At Baden-Baden, some women were arrested for selling adulterated honey. The buyer, a hotel keeper, was summoned as witness. On being asked whether he knew the honey was adulterated, he said he did. The judge then asked him why he had bought it.

The man very coolly answered that when he bought genuine honey his guests ate too much of it!—Le Rucher Belge.

FRANCE.

Mr. Dufour has made some observations on the laying of the queens or rather on the brood raised. The largest amount from his best colony was an average of 1627 eggs per day during the period between June 10th and July 1st. The same colony, between April 9th and April 30th, showed a daily average of 1,120 eggs. Another colony, much weaker, produced only an average of 771 eggs between April 30th and May 21st. These figures were obtained by counting the brood present and therefore refers to the brood raised. The queens may have laid a much greater number of eggs than that.

Mr. Layens measured on April 15th the brood contained in his best colonies. He found a total of 13.496 square centimeters. This would correspond for each colony to a daily average laying of only 304 eggs.

Mr. Dufour adds that the queens lay considerably more eggs than the bees use. In one of his experiments, he found some 850 eggs laid which disappeared instead of being raised as brood.—L'Apitculteur.

ENGLAND.

The Dundee-Advertiser reports the following apicultural whopper: While D. Cooper was driving from Colliston to his farm a swarm of bees followed them. Suddenly the queen bee of the swarm entered the mouth of the horse and the whole swarm followed taking possession of the horses stomach. The horse died in agony."

AUSTRIA.

Jung-Klaus says in Deutsche Imker, a regular bee-keeper should have no robbing in his yards. In other words he should not allow weak or queenless colonies. Jung-Klaus also advises not to disturb bees during the honey flow. He observed that a colony not disturbed had gained four pounds above one disturbed during one day.

The fertilization or mating in a glass bottle is reported by Jung-Klaus in Deutsche Imker as being an American invention. He has his fun over the matter as well as over another American invention, the wooden cell-cups Jung-Klaus apparently has difficulties in distinguishing between myth and reality.

THE MARKET CONDITION.

A circular letter issued to the trad by one of the most extensive importer of honey in New York is to the effec that a representative of the firm ha just returned from a tour of inspectio through Cuba, and that he finds pros pects good for a large crop of hone during the coming season. This hous advises its patrons that it has its ow man "on the ground" in Cuba, that h is acquainted with the bee-kepers an is in a position to handle Cuban com and extracted honey to great advan tage; and that only strictly white, wel filled sections will be shipped. Th quality, it is assured, will be A-1, an prices as low, if not lower, than for d mestic goods. Oh, no! "The Amer can producer has nothing to fear fro West Indian competition."

If only the product of the Unite States were to be considered, it is saf to say that prices would be higher th fall than in years; but with the heav foreign competition that is developin it appears that prices are bound to ru even lower than at present, regardle of the extent of the domestic produc Conditions throughout the Union present are such that the Americ markets could hardly be supplied th year, if we were obliged to rely upo our own resources; yet the indicatio are that the seaboard cities will hav "dead loads" of choice honey to off at prices lower than the American pr ducer could meet with profit.

HONEY IN COURT HOUSE.

A colony of bees took up their abo in the ceiling and under the floors the County Court House in Belvider N. Y., some months ago, and made lo of honey. Sheriff Barker and Coun Clerk Frith concluded they were e titled to some of the sweets of this lif instead of the Freeholders having the all, and raided the bees, using as weapon a peck or two of sulphu which they burned to dislodge tl bees.

They then secured about sevent five pounds of honey, which they w turn over to the Freeholders to he pay the election bills.—Philadelph Evening Telegraph.

THE AMERICAN BEE-KEEPER

PUBLISHED MONTHLY.
HE W. T. FALCONER MANFG. Co.
PROPRIETORS.
H. E. HILL, - EDITOR,
FORT PIERCE, FLA.

Terms.

Fifty cents a year in advance; 2 copies 85
nts; 3 copies $1.20; all to be sent to one
stoffice.
Postage prepaid in the United States and
anada; 10 cents extra to all countries in the
stal union, and 20 cents extra to all other
untries.

Advertising Rates.

Fifteen cents per line, 9 words; $2.00 per
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Advertisements must be received on or be-
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Editorial

A Scarborough, N. Y., correspondent
rites a very commendatory letter in
gard to The Bee-Keeper's edi-
orial policy in general and recom-
ends strict adherence thereto in the
ture. It is gratifying to receive such
ersonal expressions of appreciation
nd approval, as well as to get cour-
eous letters of criticism. They all help,
nd for this assistance our readers
ave our thanks.

Publishers who have been making use of the old canard about "manufactured comb honey" have been brought to realize the fact that, even if the bee is reported to have been "put out of business," there are yet a number of bee-keepers in the country.

The accepted belief that queens never mate but once, is being subjected to questioning more or less severe from various sources. It is not altogether improbable that we have yet something to learn in regard to this point, hitherto supposed to have been established as a fact beyond question.

Some breeders make a specialty of supplying virgin queens for the trade. If these are from some certain stock with which the buyer is acquainted and satisfied, the plan may be satisfactory; but a virgin queen affords no means of testing the qualities of an unknown race or strain. In fact, where but one or two queens are to be tested, nothing short of a selected, tested mother affords any satisfactory material from which to determine the merits of the stock. If a virgin proves worthless, it's easy for the breeder to charge the fault to the male parent; which, indeed, he might consistently do.

Notwithstanding the announcement, upon several occasions, that the editor of The Bee-Keeper has but one colony of "Punic" bees, and has had these less than a year, we have recently received several urgent requests that we give our personal opinion of these bees. To all of these we can but repeat that our personal experience is necessarily too meagre to support any well defined opinion. Opinions without some foundation are worthless. The individual colony in our possession this season was the only one in an apiary of sixty colonies that cast a swarm. They have been active honey gatherers and have been, under all circumstances, very gentle and amiable. The queen is more than ordinarily prolific. Readers who are interested in the subject are now in possession of all knowledge in regard to "Punic" bees that is at the writer's command. Elsewhere in this number of The Bee-Keeper, however, Professor Benton gives his own "opinion" and "experience," as opposed to that of Mr. Hewitt which appeared in these columns last month.

FIRST CIVIL SERVICE EXAMINATION IN APICULTURE.

The first Civil Service examination in apiculture ever ordered by the United States Government bears date of July 29, 1904, and occured August 31st, and was conducted to secure eligibles from which to make certification to fill a vacancy in the position of Apicultural Clerk (either sex), at a salary of $720 per year, in the Bureau of Entomology, U. S. Department of Apiculture, and other similar vacancies as they may occur in that Department. The examination consisted of the following subjects, and were weighted as indicated:

	Weights.
1. Spelling (twenty words of more than average difficulty)	3
2. Arithmetic (fundamental rules, fractions, percentage, interest, discount, analysis, and statement of simple accounts......	8
3. Letter-writing (a letter of not less than 150 words on some subject of general interest. Competitors will be permitted to select one of two subjects given)....	7
4. Penmanship (the handwriting of the competitor in the subject of copying will be considered with special reference to the elements of legibility, rapidity, neatness, general appearance, etc.)	3
5. Copying (a test consisting of two exercises—the first to be an exact copy of the matter given, and the second to be the writing of a smooth copy of rough-draft manuscript, including the correction of errors of spelling, capitalization, syntax, etc.)	5
6. Copying from plain copy (writing with the typewriter an exercise consisting of 450 words, paragraphing, spelling, capitalizing, and punctuating precisely as in the copy)	12
7. Copying from rough draft (the competitor will be required to make, with the typewriter, a fair copy of a rough-draft letter)	12
8. Practical questions in apiculture........	50
Total	100

THE BEST BEE.

W. M. B., Spartanburg, S. C., writes to ask what is the best bee we have tried for the South.

We have not tried all the different races; but have introduced many different strains of Italians, and know of no better bee for either the North or the South than the three-banded Italian and their crosses with selecte strains of the blacks, or Germans. W are not so particular as we once wer to have all stock like Royal Bakin powder—"absolutely pure." It shoul be borne in mind by the inexperience however, that there are very inferic strains of Italians in existence; an purity is by no means a guarantee excellence in any race of bees. O the other hand, excellent strains ma be found among any of the variou races. A little careful selection—wit a keen eye solely to the matter of desi able traits or qualities, will result in short time in the development of satisfactory strain. Being selecte with a view to acquiring the particul habits or character which our indivi ual requirements remand, the result such selection will correspond. Anoth apiarist, differently situated and with different object in view, might not a preciate the very qualities which v have striven to secure for our person use.

From the knowledge at our cor mand, however, we believe the leathe colored Italian and the German safe a base upon which to build as v have, though it appears to be the pa of wisdom to test, to a limited exter new varieties and races, in order to in a position to acquire or adopt a commending traits they may be fou to possess.

THE ADVANCE OF APICULTUR

Apiculture is now officially recogn ed by the United States Governme at Washington, and is on a solid fo ing, equal with other branches in t Department of Agriculture.

Our old friend and occasional co tributor, John M. Rankin, of Michiga and Mr. Leslie Martin, of Tenness have recently been appointed "Spec Agents in Apiculture," to assist A cultural Investigator Benton. The "Special Agents in Apiculture" will located in Washington, but at tir will go out for field observations a work.

All reading bee-keepers are awa that this progress is but an outgrow of the years of quiet, persistent eff that has been brought to bear at Was ington by Prof. Benton, and the f ternity owe to him a debt of gratitu

Correspondence schools of bee-ke ing are springing up at divers plac Great scheme—for the "schools."

"HARVESTING BEE STINGERS."

Several readers have called our atention to an article in the Philadelhia North American for August 8, laborating the details of a great inustry carried on at Jenkintown, N. ., by W. A. Selser, in extracting bee tings to secure the poison for medical urposes. While it is not improbable hat Mr. Selser makes something of a usiness of supplying chemists, as inicated, the article is for the most part bsurd and ludicrous. The following aragraph will suffice to illustrate the eneral foolishness of the thing as ublished:

Doesn't Hurt the Bee.

"As the loss of the stinger does not nterfere with the honey-producing apacity of the bees, the apiarists are nding fortune in the newly discoverd cure,and a great impetus has been iven to bee cultivation. The stingers ring $8 or $9 a thousand."

THAT "PUZZLE."

In The Bee-Keeper for July, page 43, was published a puzzling question, nd we offered $1.00 for the best soluon of the matter sent in by a beginer before July 15th. Professional piarists as well as amateurs have sent n replies, but to present writing we re at a loss to tell who is entitled to ne dollar, for the reason that, to the ditor's mind not one reply has really nerited the reward. There seems to ave been no "best" or "most plausile" solution received.

We have waited patiently for somene else to solve the problem, but as no plausible solution" has come to hand, ne editor gives his own deferred reponse, for which W. H. F. has asked, s follows:

Bereft of brood, queen and all else ertaining to "home," and placed in a ark room, it is the most natural thing n the world that a cluster of bees, in esponse to the "call" from some lone ndividual, should congregate somehere in the room; and the most likely lace would be in one of the supers. nder similar, or the same conditions uch a cluster has been known to deelop laying workers and attempt to stablish themselves independently. hen such a cluster was brushed beore a hive, lost and lonely, they would eadily enter any hive. Though war ould result to a greater or less extent t any time, fighting would be the more intense and determined at night.

This is The American Bee-Keeper's solution. If W. Z. Hutchinson or E. R. Root, Beedom's supreme judges, will supply (to their own minds) a more "plausible solution," they may either one, or each, have a dollar.

Editor Adelsbach, of the Western Bee Journal, summarizes the apicultural situation in California about as follows: 4,000 bee-keepers, quite a number of which have from 1,000 to 1,500 colonies, while one man controls 8,000 colonies. It is estimated that there is within the state about 300-000 colonies, representing an investment of $1,500,000, and an annual expenditure of $250,000. The value of the annual product is about $1,250,000.

We shall be pleased to have brief reports of the season from our readers. Matter for publication should be written upon only one side of the paper; lines should not be too closely written, and a margin should always be left at side and top of sheet. The editor's chief delight is in receiving letters from his readers; but he begs to suggest that before writing, each one will kindly pick up all the lead pencils in the house, walk away two or three miles and lose every one of them.

One of our northern correspondents seems to take a special delight when writing our southern office, in alluding to the fact that Florida has but five members of the National Association. Does he not know that every state maintains a similar or larger percentage of bee-keepers who remain on the outside in order to be qualified to administer impartial and unbiased advice, as well as expert criticism?

Mr. W. W. McNeal, our staff correspondent, of Wheelersburg, Ohio, has met a failure in the honey crop this season, excepting a small quantity of very dark stock. Mr. McNeal is, however, very philosophical, besides being a veritable mocking bird at whistling, and he is already warbling merrily as he contemplates the rich possibilities of the future and makes preparation for the season of 1905.

An exchange says, in substance, that the greatest enemy of the bee is the ignorant bee-keeper.

Goozenheimer und the "Bee Cure."

I haf been out to der voods mit Vigglesburger, also Dr. Schuhorner, vare ve hat der time uf our lives. Vigglesburger hat der rheumatism und ve der experience.

Der event camed aboud as following. A day or two ago recently Vigglesburger passed by mein delicatessen shop and set, "Henrich, nefer vos I so discouragemends mit dese rheumatisms, nefer. I haf tried efery dings under der vays uf der sun to cure me disailment, but today I am more unvellness den nefer before or afterwards. Vot now to did I cannod find oud."

"Vhy is you so dejected mit der melancholy uf your ailment ven der medical science vos nefer so vonderness as today?" I set.

"Vot haf der medical science to did mit rheumatism?" set Vigglesburger, exciting his speakings. "Haf I nod dem all tried, Henrich, from archeology und entomology down to trigonometry und zoology, also including osterapathy,"

"Vell, vel," I set, "vhat you did for you railment mit in der few days or a veek recendly?"

"Vhat haf I did?" set Vigglesburger, using a tone to his voice like vould call der police, "listen your attention alretty. Lasd veek I took me der cold water cure. 'Drink concopiously uf vater,' set der physicianer, '11 or 8 gallons a day.' Und I dit id, Goozie. Den came annudder physicianer und he set ids dropsy you haf, und prescribed me un engine to pump me quick out. After dot camed annudder physicianer und he set: 'See her, you're starving your pores, und also your body. Id's rheumatism uf der appitite you haf. Ead, ead,' he set, 'ead like a pig—you need id der strength to fight der disease.'

"Vell, I eated und eated, Heinrich, till mein interior departments vent into der receiver's hands, und eferydings I ate vent straight to mein stomach.

"Den annudder physicianer came. Set he: 'Ids a diet you vant,' and ordered some sparrow bird's milk and canary bird seed. Der canary bird seed vill make you so chipper, but vos I so chipper ven I fell downstairs from der veakness I hat?"

"Vigglesburger made a silence as he paused his remarks to a stillness, vile I vent to a mirror for reflections.

"Vait, vait," I set, "haf you heard uf der 'bee cure?'" as suddenly der memory handed oud its remembrance. "Now dots a cure vot is a cure. In ids infancy id is, bud scientifikers claim id der greadest discofery uf der time und der age."

"Vot to dit mit rheumatisms ha bees?" set Vigglesburger, witou showing der least particle uf astonishes on der weather exposure uf his countenance.

"Uf tomorrow ve can get Dr. Schuhorner to accompany us," I set, "ve vil visit der voods und also der bees."

Dr. Schuhorner consented, so de nexd day ve vent to der forest. Thre hours later der doctor discovered som bees in der trunk uf a tree, und de treatment uf Vigglesburger for hi rheumatism commenced.

"Strp yourself uf eferydings bu your balbriggans," set der doctor, "un take your stand dare in front uf de tree."

Vigglesburger took his stand as heroicals as der Dewey arch.

"Id's mein opinion," set der docto "dot 8 or 12 stings vill suwcient yo yet. Bee stings vos poison, und as i takes like to cure like, vhich I beliv der old theory, your ailment vill fle like birds on der ving."

Eferydings vos readiness und I pol ed ad der tree to bring out der bees.

"Gently ad first," cried der docto bivouacking hisself behind him a tre some distance avay.

Biz! biz! zum! zum! as out came some bees.

"Wow!" yelled Vigglesburger, as da bited like mad on his collar bone ye

"Stand your ground," cried der do tor. "Now, poke dem again," und poked dem some more.

Biz! biz! zum! zum! biz! biz!

"Wow! Wow!" yellezd Vigglesbu ger, more deafening den effer, as de bees bit him on his soloappoplexus.

"Doan'd flinch," set der docto "poke again," und I poked.

Biz! biz! zum! zum! biz! biz! zun zum! Dis poke vos der lasd und de noise vhat followed vos like der roa ing volcano.

"Hornets!" yelled der doctor, tea ing through der voods, like der nois uf a train. "Flee for our lives!"

"Help! Wow! Help!" screache Vigglesburger, leaping in der air like hop chumping jack; bud too late came der cry, for ve vos surrounded py hornets.

"Himmel upon Himmels! Call der police, Vigglesburger," I yelled, as efery hornet in der tree fell upon us mit his defouring madness.

"Help, doctor, help!" cried Vigglesburger, vile using some language uf brimestone, bud der doctor vos out uf der voods, didding der street in six minutes or less.

Der angry, maddened hornets chased our anatomies und bited dem till our bodies vos full uf holes like der porus plaster. Vigglesburger ran as fast as he could to der edge uf der voods, den py accident hung up on a barbed wire fence by his underclothes. I escaped ad last mid difficulties, und id vos a sorry sight I presentation ven I limped me to home. Mein body vos der size uf a balloon, vile mein face vore a bake apple expression.

Ve aftervards learned dot ve did not take bee treatment correctly, und ven Vigglesburger told me dis I dismissed him from mein presence at once and vent about mein business, to forget Vigglesburger, his rheumatisms und der whole oudfid.—Boston Sunday Globe.

THE DECLINING LUMBER SUPPLY.

Much has been said recently in regard to the threatening scarcity of lumber from which to construct hives, and for general use. We recently received from Mr. Hutchinson, of the Bee-Keepers' Review, a splendid photograph, taken by Mr. Hutchinson, himself, entitled, "Michigan's Last Pines," and in deploring the passing of these stalwart giants of the forest he wrote feelingly. The problem is indeed a momentous one, as it affects all consumers of lumber, and the list practically includes everyone.

It is hard to conjecture as to what will be the ultimate outcome of this condition, but it appears that much of the supply for some years hence must come from the South. There is, we believe, no lumber in the world better suited to the requirements of the bee-keeper than cypress, and the eyes of alert lumbermen are turning southward. As a mere example of the situation as it exists at present, we deem the following from the Jacksonville (Fla.) Times-Union, of recent date, worthy of reproduction, as it will give our readers a glimpse of affairs which indicate the trend of the times:

"D. Beacham and H. H. Shackelton, the former of Orlando and the latter of Luddington, Mich., have formed a copartnership and have located offices in Jacksonville.

"The business purposes of the firm are to buy and sell pine and cypress timber lands, but they will do no commission business. Mr. Beacham of the firm is the largest individual land owner in the State, and for a number of years has conducted a business in the buying and selling of timber from his office at Orlando.

"Mr. Shackelton came to Florida from Michigan more than a year and a half ago. During that time he has brought many investors to the State, aggregating nearly two million dollars in the amounts invested. Mr. Shackelton came from a timber country, Michigan being his former home, and has brought a number of his former fellow citizens of that great lumber State to operate in the cypress and pine of Florida. Timber has about played out in Michigan, and with the passing of the timbered lands in that State a large number are now finding themselves without occupation in the vocation to which they have devoted their lives. Having learned the timber and lumber business thoroughly, they are now seeking homes in another land of promise, and a goodly number of them are finding it in Florida.

"Mr. Shackelton has himself been an extensive buyer of Florida timber, and it will be the business of Beacham & Shackelton to handle only their own properties. The firm now owns in the neighborhood of five hundred thousand acres of timber, besides a number of orange groves and some city property. They have holdings in Levy, De Soto, Brevard, Osceola and Orange counties."

Boston, Aug. 20.—The honey market is in a very unsettled condition, or rather, we might say that the absence of any demand practically makes no market. As a general thing, we do not look to see a demand until cooler weather creates a certain demand.

Prices at this time are, therefore, practically normal. The very finest thing is bringing 16 cents, and from that down.

Stocks are coming in very slowly, but that is to be expected at this time.

Blake, Scott & Lee.

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Street, Chicago. (5-5)

HONEY AND BEESWAX MARKET.

Cincinnati, Sept. 15.—There is an improvement in the honey market, so far as extracted honey is concerned. The demand has increased considerably, but the supply is limited, owing to the fact that bee-keepers in general are mistakably holding their crop for better prices. We quote amber extracted, in barrels, at 5½ to 6 cents.

The comb honey situation is badly demoralized, being aught but encouraging. Quote fancy white clover comb honey at 14 to 15 cents. Beeswax, 26 and 28 cents.

The Fred W. Muth Co.
No. 51 Walnut St.

Chicago, Aug. 18.—Some new honey is on sale. No. 1 to fancy white brings 12 to 13 cents. So far, the demand is slow. Extracted, good supply, and white grades sell at 6 to 7 cents; amber, 5 to 6 cents, according to kind, quality, flavor and package. Beeswax, 28 cents.

R. A. Burnett & Co.
199 South Water St.

Denver, Aug. 16.—The supply of honey is good. The demand is only fair, as there is much fruit in the market. We quote our market today as follows: Comb, No. 1 white, per case of twenty-four sections, $2.75; No. 2, $2.50. Extracted, 6 3-4 to 7½ cents, in a local way, with light demand. Beeswax, 22 to 25 cents.

Colorado Honey Producers' Association.
1440 Market St.

Kansas City, Mo., Aug. 30.—With cooler weather the demand for honey is slowly increasing, and prices are firm, as follows: Fancy white comb, $3.00 per case; amber, and
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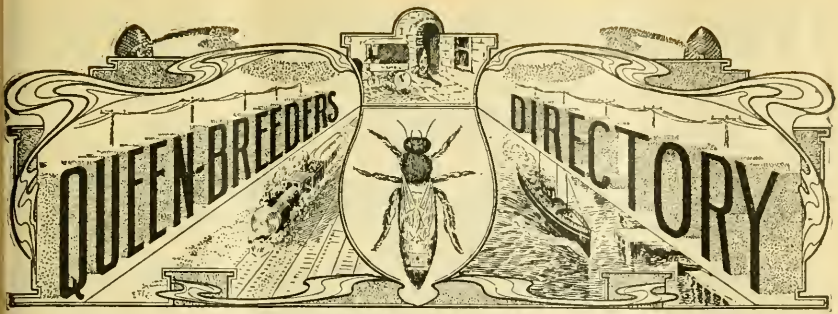

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The First Step

in making money as a bee-keeper is the securing of a good location; and the Review even goes so far as to discover and make known desirable, unoccupied locations.

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Having secured the location, the next step is that of stocking it with bees of the most desirable strain; and, having had years of experience with all the leading varieties of bees, the editor of the Review is able to, and does, tell his readers where to get the best stock. Still further, the Review tells how to make

Rapid Increase,

how to build up ten or a dozen colonies, in a single season, into an apiary of 100 or more colonies.

Having the location and the bees, the bee-keeper must learn how to manage them so as to be able to establish an out-apiary here, and another there, and care for them with weekly visits—yes, by monthly, or even longer, visits, when extracted honey is produced. It is in teaching bee-keepers how to thus

Control Swarming,

that the Review has been, and is still, doing its best work. If a man only knows how, he can care for several apiaries now as easily as he once cared for only one.

Having secured a crop of honey, the nex step is that of selling it. This is the mos neglected, yet

The Most Important Problem

of succesful, money-making bee-keeping, an one that the Review is working the hardest solve. So many men work hard all summe produce a good crop, and then almost give away. The Review is trying to put a stop this "giving it away." It is showing, by t actual experience of enterprising bee-keepe how the leisure months may be employed selling honey at prices that some of us wo call exorbitant. The men who have done t tell how they did it.

The editor of the Review has a wide, actu personal acquaintance with all of the

Leading Bee-keepers

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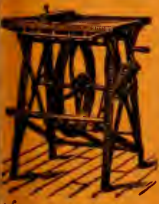

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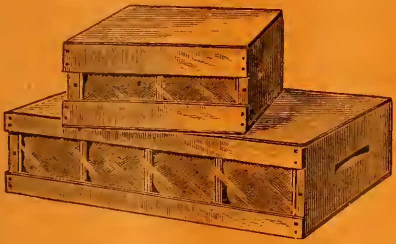

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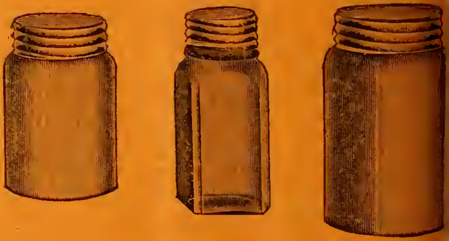

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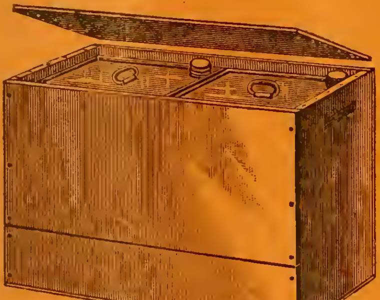

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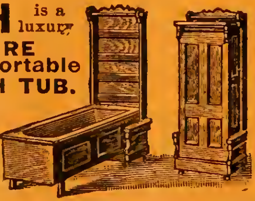

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THE AMERICAN BEE-KEEPER

Vol. XIV NOVEMBER, 1904. No. 11

A QUEEN RESTRAINER.

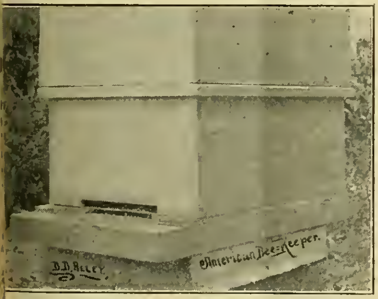
An Interesting Article With a Laughable Episode.

By D. D. Alley.

THE FOLLOWING is, I believe, a new use for the perforated zinc honey-board, which in combi- tion with a modified form of the ley Queen Trap will control swarm- i.

As commonly used the honey board i placed between the brood chamber d the super. This prevents the queen fm going into the upper story of the ve and depositing her eggs where ty are not wanted. In other words, t honey-board is a queen excluder. I we place the honey-board between t bottom-board and the brood cham- b, in that style of hive in which the trance is made by the raised rab- t on the sides of the bottom-board, the queen excluder in its new position, becomes a queen restrainer. The queen being unable to pass through, while the workers have perfect freedom of action throughout the entire surface of the honey-board and the original entrance.

In the double-walled hives, as usually constructed, the entrance is cut out in the body. As the honey-board is smaller than the outside dimensions of these hives, in order to make it ship-shape in its new position (though not absolutely necessary in our experiment), we must broaden and lengthen its frame in order to make it come out flush with the hive body. This we can easily do with a few



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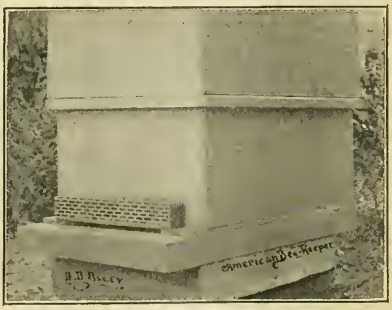

With Trap in Position.

strips of wood 3-8 inches thick, or thicker, if you like a deep entrance. Now, if we cut out from one end of the honey-board frame a piece the width of the original entrance and place the frame, bee space side down, beneath the body, we will have two entrances, one above the other. One through the meshes of the entire honey-board and out under the same. The other, the original entrance over it. Of course the edge of the zinc must be flush with the front of the hive.

Next cut away the lower section of the Alley queen trap. Then cut two entrance blocks the same thickness as the honey-board frame. The object being to elevate the trap to the level of the old entrance, thus closing it and leaving a suitable entrance below it. Place the trap on the blocks, snug against the hive with the little wire cone entrances of the trap next to the original hive entrance and the job is completed. In this way we can catch the queen without interfering with the free flight of the workers. In fact, I see nothing to prevent it from being a permanent fixture of every hive. This contrivance is not so liable to become clogged with drones, dead bees, etc., as is the Alley trap if it is left on the hive any length of time. By using the upper story of the trap only, and the whole surface of the honey-board, like a sieve, as it were, and providing a new entrance by its means, practically the same as the original one, we can undoubtedly control swarming to a great extent, if not entirely.

After the bees have swarmed, remove the entrapped queen and proceed to hive them as recommended by the experts. If necessary, the honey-board may be restored to its former use.

No doubt, some one will say: Why go to all this trouble, which can be obviated by clipping the queen's wing? Very true. Some people have a mania for clipping things. Docking horses' tails, cropping the ears and tails of dogs and cutting the wings of poultry, etc., striving to improve on nature. But some of us are so constituted that we shrink from mutilating any living creature, including the coin of the realm.

I had a clipped queen at the beginning of the season. I was away to the city on business, when her mutilated majesty led out a swarm. My wife found her "hopping about on the grass" Instead of hiving the swarm immediately, her household duties claimed her attention, so she clapped the coffe strainer over the queen and weighte it down with a strawberry box fille with nails. She was "bound to kee the queen in!" The swarm returned t the hive and all was well. Upon m arrival, my wife greeted me with "The bees have swarmed and I hav the queen under the coffee strainer o the lawn!" I brought out a new hiv and made all ready to shake the bee in front of it. Upon raising the strai er to get the queen I found a miserabl black cricket beneath it! After a tho ough investigation of this strang transformation, I learned that whe the children returned from school m little boy saw the new ornaments o the lawn. While investigating th same, a stray chicken killed the quee He then tried to square things by sub stituting the cricket.

Yonkers, N. Y., Sept. 23, 1904.

SHALLOW HIVE DEFENDED.

By J. E. Hand.

EDITOR American Bee-Keeper:

Mr. McNeal's ably written artic on the shallow brood chamb hive, on page 179, is very interestin reading, and more so, perhaps, to tho who are not acquainted with the a tual facts of the case.

To those of us, however, who a using the very shallow frame with t most gratifying results, in successf wintering as well as honey productio the whole article savors rather stro ly of theory. But it is refreshing note Mr. McNeal's willingness to " vise his theories" in case they a proven fallacious. To cut a long sto short, he has simply set up a man straw and coolly and deliberately p ceeded to punch the stuffing out him, as not one of the serious obj tions which he so vividly sets for can apply to the properly construct divisible brood chamber hive.

Like every theorist who wishes set forth the great superiority of t deep frame or tall section, he mak use of the oft repeated, though erro ous, statement that bees have a gre preference for combs that are deep than they are long.

It should be evident to even a ca less observer that two things, and o two, govern the shape or form of n ural combs. These are the shape of t hive and the size of the cluster. It the rankest kind of nonsense for a e to make the statement that tall ections will be finished quicker than allow ones.

It is true that a small cluster in a rge hive must of necessity build ownward faster than sidewise but if e cluster can fill the top of the hive is the case with the shallow brood amber, the center of the comb will ly be slightly lower than the ends, hen such are built half-way down e frames.

After carefully reading friend M's le article I am forced to the conusion that he has never had a proply constructed divisible brood chamr hive.

The shallow brood chamber hive is r ahead of the deep frame, hive ther for wintering, building up in ring, rapid manipulation or comb ney production.

I have 130 such hives and I know hereof I speak. I have also frames deep as 16 inches. Also the regular frame.

Theory is one thing and actual facts, cked up by tons of fancy comb ney, is another.

When in doubt consult your bees and t theories go for what they are orth.

I will close by saying that in my teen years experience in wintering es in very shallow frames I have ver had a colony die of starvation ith plenty of honey in the hive, as have had scores of them do on deep ames.

irmingham, Ohio, Sept. 7, 1904.

LORIDA NOT A QUEEN BREEDER'S EL DORADO.

By M. F. Reeve.

THE last time I met E. L. Pratt, the Swarthmore queen breeder, in the spring he had just return- from a trip to the St. Johns river, la., where he had located a site for a anch queen breeding plant, so as enable him to secure early queens. e told me he had his ticket purchased d everything arranged to start in ith breeding.

I met him again a few days ago, d he informed me that he was exemely lucky in not having gone to e Land of Flowers.

He had advices from another Northn queen breeder who went there picring everything in such discouraging lors that he had abandoned the idea and concluded to seek for some other Southern locality, probably Texas. His Florida friend told him that the king bird and dragon flies committed such havoc among his colonies that he had lost 70 per cent of the bees he took down there. Dragon flies literally swarmed in myriads, devouring the queens on their mating flight and the drones as well as workers. He was about to pull up stakes and get out for some place where they didn't have such pests.

Mr. Pratt says he has been much hampered this year by the difficulty of getting bees for his nuclei and has had to turn down several hundred orders for queens in consequence.

Rutledge, Pa., Dec. 1903.

PHACELIA AS A FORAGE PLANT.

By. Henry E. Horn.

APICULTURIST C. C. Miller's challenge to "those California chaps" to produce evidence showing that the phacelia tan. is a valuable forage plant, has been noted; and, my name having been singled out in particular with relation to said challenge it gives me delight to buckle on my nickle-plated armor and to face the Sir Knight in combat. The trouble, I may here add, why said "chaps" have remained "dumb as oysters" heretofore lies probably with the gentleman himself, i.e.,his choosing"The Conglomerate Goody-Goody"to convey forth his martial proclamations instead of the regular "War Cry." In this mountain-enfolded corner of Roosevelt's empire, we all study the "War-Cry" and the "Arizona Kicker," and the "Rhig-Veda," as we sit squatting behind a cactus stalk apiece but naught else. Any time-crevices left between, are filled in with meditations on the infinitesimal calculus and blinking at the southern coal sacks.

There is just a doubt whether the phacelia cultivated by Mr. Miller as a window plant is the true tanacetifolia variety. There are, at least, three varieties of the plant known. California seedmen keep phacelia seed, but not of the tan. variety. Mr. Miller's kind is fragrant, the tan. here is not. Also, the tan. variety is less showy than the "Parryi" and the rest; hence florists would naturally select the latter for their trade. Yet, as a forage plant, none but the tan. is of any value. So much for preliminaries.

In the April number of one of the widest circulated bee-journals of Central Europe, a purely technical, scientific publication, there appear twenty-six different paid advertisements of phacelia seed by as many different individuals. The prices named are by the pound and the hundred-weight. Now, the reasons why these offers are made is because there is a demand for the seed—and a growing demand. And the reason back of the demand is the knowledge of its value gained in former years by extensive experimenting. There are probably ten thousand acres planted with phacelia tan. in Germany alone this present year. Direct reports of the forage value of the plant made by a great number of people in various parts of that country are not unanimous, and not as good this year as last, but still favorably enough to warrant farther and extensive cultivation. A special feature of the usefulness of the plant agriculturally, as well as apiculturally, is only lately being discovered, namely: sowing it in fallow land in the fall for a late honey-flow, and then plowing it under for green fertilizing.

Of the forage value of phacelia tan. "on American soil," I beg to submit the following:

The cattle on my eighty-acre ranch leaning up Blue Mountain, five miles out, consist of a pack of twenty coyotes, seventy-five jack rabbits, one dozen skunks, three wild cats and one hundred cangurro rats. Of that collection the jackrabbits alone take the phacelia tan. as it should be taken, as, I believe babies take their luncheons, i.e., by nibbling at it from morning till night. The coyotes take it by preference transmuted into juicy rabbit hams, and they take it with avidity after chasing their owner up and down the twilight canons for twenty miles. Of the skunks it must be said that they are somewhat more esthetical in their appetites. They like the nectar of the sky-blue phacelia blossom best and they take it exclusively with the honey bee on the outside of it, for which purpose they pay nightly visits to the neighboring apiaries. As for the cangurro's and the three stub-tailed tommies, I am afraid I might be accused of having slipped off the straight path if I ventured to tell of their fantastic gambolings among the phacelia patches when the moon hangs low; besides, I truly think the foregoing is proof overwhelming enough and of the nature asked for, to convince Sir Knight of the identity of the "presumptuous ignoramus" with whom he promises to be well pleased.

Should, however, my challenger's war spirit be unsubdued still, the following flanking movement, as they say in Manchuria, I think will fetch him Let him do as a considerable numbe of Americans are doing at the presen time; buy a quantity of seed, sow it and afterwards feed the plant to his herds and flocks—and watch them fo results. And it would probably be as well to have a set of "Before Using" and "After Using" photographs taken else the rapidly disappearing ribs an rounding out hipbones might guilelessly be explained with "optical illusion my dear sir, mere optical illusion," instead of being credited to the beneficent work of the nutritious juices o phacelia tanacetifolia.

THAT DRONE IN WORKER CELL.

The doubt expressed by Mr. C. S Harris on page 133, whether a certai raised cell of mine contained a dron is, of course, justified from his view point, not knowing the accompanyin circumstances, just as I was justifie in my positive view, knowing the ci cumstances. I mentioned that occurrence at the time to draw attention t a certain new theory, hoping to induc an inquiring soul here and there t prove, or disprove it by actual rigorou experiment. Mr. Harris can do tha Let him lodge an entire colony over c drone comb, and after all normal i stincts for drone-rearing have becon dormant, let him dequeen said color and watch the results.

REMARKABLE INCIDENT.

This spring a very populous color of Carniolans was dequeened. Aft due lapse of time, no queen nor egg appearing, a yellow two-year-old mot er bee, which was about to be supe seded, was taken out of her famil dipped three times in water and p down between the frames of the Ca niolans. Six days afterwards fi frames—two on the south side of t hive, and three on the north side, wi an empty frame between—contain eggs and larvae. Upon closer inspe tion the yellow queen was found no mally active on one side of the hiv and a young Carniolan on the other.

Riverside, Cal., July 20, 1904.

Following is Dr. Miller's response the foregoing, which had been su mitted to him before publication. Both sides of the matter are now before the reader.—Editor.

Replying to Mr. Horn's facetious phacelia talk, I am aware that there are several varieties in California—W. A. Pryal says eight—but I think there can be little doubt that what I have had is tanacetifolia. I got the seed from Otto Luhdorf, labeled "tanacetifolia," and it is the same that I cultivated years ago as a window-plant. Mr. Horn says the tanacetifolia is not fragrant there. Neither is it here when grown in the open ground, but when grown as a window plant.

I have been very anxious to learn the forage value of phacelia in this country, and am still anxious to believe in it if there is foundation for that belief. As to this, Mr. Horn is still "dumb as an oyster," jack rabbits being the only thing he mentions as eating phacelia, but not a word as to domestic animals. Otto Luhdorf is very temperate in his estimate, hardly considering it worth cultivating beside alfalfa.

That phacelia seed is largely advertised in European bee journals hardly proves that the plant is worth cultivating, even in Europe. Witness the boom of the Chapman honey plant in this country not so very long ago. Nothing is heard of it now, yet it is still advertised across the water.

Mr. Horn says reports from Germany are not unanimous, and not so good this year as last. He might also have added that protests are not wanting against deceiving the farmers into planting phacelia as a forage plant—as for example Pastor Eck in a ate number of Praktischer Wegweiser, who says it will only redound to the injury of bee-keepers.

This year I had a bed of phacelia about ten feet square. Bees did not work on it as thickly as they ordinarily do on buckwheat. Horses would eat it if they couldn't get anything else. Yet they might learn to like it; and possibly the plant did not have a fair show, as the bed was sown entirely too thick.

Now, Mr. Horn, I hereby challenge you in the most war-like manner—sufficiently war-like to suit even so beligerent a spirit as yours—to tell us of a 10-acre field of phacelia cultivated as forage crop in all California. Never mind the "probably ten thousand acres" in Germany (I wonder where you get authority for such a statement anyhow?) never mind the jack rabbits and skunks and things, but tell us of just one farmer in California, the original home of phacelia, who cultivates phacelia to the extent of five acres for his domestic stock. If you can cite a dozen of them with an aggregate of a thousand acres, it will please me well.

C. C. Miller.

CONSULT THE RECORDS.

Studious Research is Both Interesting and Profitable.

By Arthur C. Miller.

AS THE LONG winter evenings approach, many a bee-keeper casts about for something to take the place of the bees or begins to lay plans for the next season. At the risk of repeating an old suggestion, I want to point out the value of going over the text books and back numbers of the magazines. Some will say that it is too dry, that they want to go ahead. I know of no more helpful thing than a knowledge of what progress has been made in the profession in the past. Such knowledge will enable us to at least begin where our ancestors left off; will save many a needless experiment and will not only help us ahead more rapidly, but it will assure our making real progress.

Three hundred years ago Butler knew as much as we do about the possible value of drones as brood warmers, realized the advantage of curtailing their numbers, and devised a trap for catching them. He held much the same opinion as we do in regard to location of hives, wind-breaks, shades, etc.

But one need not go so far back to learn the history of the art. Text books of today, as well as those of our fathers, give a pretty complete history so far as it relates to modern practices. A perusal of these, supplemented by a reading of the discussions of various systems, will prove both interesting and helpful

It may interest some to know that phacelia, as a honey plant, was discussed fifty years ago; that divisible brood-chamber hives were known and advocated as early as 1803; that the stingless bees of Mexico were imported into this country in 1830; that ventilation, stimulative feeding, artificial swarming, etc., etc., are almost as old as the craft itself.

Apropos of Deacon Hardscrabble's assault on the "borrowing propensities" of some of our present day writers, it may soothe him or his ghost to know that the practice is no new thing. In 1829 Dr. James Thacher of Plymouth, Mass., published an interesting book on bee culture, and in 1840 one Wm. Hall, of New Haven, got out a little pamphlet of about 50 pages, most of which was a straight steal from Dr. Thacher's work. Many of the early authors quoted freely from previous works, but in most instances they took pains to state the source of their information.

But the student in search of knowledge should not let these things hinde him, and the frequent recurrence o theories which we know to be erroneous should not blind his eyes to othe matter which is not wrong.

The painstaking enthusiast may fin particular pleasure in taking up on subject at a time, and following i from its inception to the present day and possibly at the same time make a index of the subject so that he ca the more readily refer to its differen parts at any future time.

Such study will prove of value alik to novice and veteran, professiona and amateur.

Providence, R. I., October 7, 1904.

American Bee-Keeper.

Apiary of Geo. B. Howe, 1903—177 Colonies.

REPORT FOR 1904.

Careless Handling Results in Low Prices.

By Geo. B. Howe.

FRIEND HILL—I put in the cellar in 1903, 168 colonies—left five out to experiment with—five double-deckers with not less than 50 pounds each of honey.

These all died but one, before March 1, and the other one never amounted to anything so I am convinced that with a half-bushel of bees and plenty of honey, bees will not winter outdoors in this locality. I had 172 o to put in the cellar, and as I did n put them in as early as I ought t four of them were dead with plent of bees and honey. I say "froze death," call it what they like.

How shall we decide on ventilatio Now, most any cellar will winter a fe colonies all O. K., but put in, say, fro 150 to 200, and my experience for nea y 20 years is that you must give them roper ventilation—not too much or oo little. The bee-keepers will have o decide this for themselves, for celars vary, so there is no fixed rule.

I took out of the cellar last spring 22 colonies—some very weak—and t the 10th of June had 66 colonies. I ever saw anything like it. I carried hem into the cellar in early spring, nd out again. It did no good. They ied just the same. I have built them p, by natural swarming and by diiding to 130 fine colonies and six fair nes. Total, 136, with about 3,000 ounds of fine comb honey. Not so ad after all for 1904. Have about 100 oung queens in these colonies. I beieve in young queens, but would not iscard a queen one year old, though do every one that is two years old,exepting my breeders.

I think we bee-keepers are to blame or the low price of honey, and I will ell you just why: I thought I would uy some honey, so I took a ride on y wheel to see what I could do. I ound one bee-keeper with over a ton f as fine honey as I ever saw and he ad not scraped the edges of the boxes. e had cleaned the tops, and when I emonstrated he said he had it partly ased and would not take it out any ay. And yet he wanted a fancy rice for it.

It seems strange that with such a hort crop that the prices are so low. ut how does the average bee-keeper ell his honey? He sells to a buyer nd not one word does he say as to here that honey should or must be ept to retain its flavor and body. It s surprising how many put it in the e box with butter, and when told beter in a kindly way will thank you or telling them. Don't be afraid to ell them where to keep it, and to keep t in sight, not down cellar.

I think the National association ould help the bee-keepers by putting rticles in the leading magazines if hey had to pay a good price for doing .

Black River, N. Y., Sept. 23, 1904.

EPORT FROM BRITISH HONDURAS.

By G. A. Nunez.

DEAR BRO. HILL:—I have had very hard times in bee-keeping, excessive strong winds and rains ince the beginning of May last have one me much damage. At that time I had 144 strong colonies but could not examine them until about the middle of September, when to my surprise 44 hives were empty. The cause I think was that I had just extracted all the honey (ripe of course) when the weather came on and the poor bees had nothing to subsist on. I tried feeding, but not having proper feeders, I had to discontinue as the method I adopted of feeding in an open bowl would, I believe, lead the bees into the evil habit of robbing, and so it did; for when I examined them in September as already mentioned, they were almost ungovernable. However, I got through all right but will guard for next time.

I mean to look after my remaining number (100 hives) with the view of removing into the country at some future date. This will be to a distance of about 12 miles inland where I have started a plantation.

Stann Creek, British Honduras, Oct. 4, 1904.

THE LENKORAN OR PERSIAN BEES.

By. M. Pritoulenko.

(Translated from- La Revue Internationale d'Apiculture, Vol. XVIII, No. 5, May 1896, by Frank Benton, M. S., United States Department of Agriculture.

IT WAS IN 1891 that I saw for the first time bees of the Lenkoran variety, when they were brought to Tiflis from Lenkoran, the district after which they were named, and which is located in the governmental region Baku. Greatly interested in becoming acquainted with this variety, I went in 1892 to Lenkoran to observe these yellow bees in their home, for according to some the bees on the steppes of Mughan and in the lowlands of Lenkoran, differ much in color and character from those living in the mountainous parts of the same country. However, I found on the spot that in reality this difference does not exist, but that the bees of the plains and those of the mountains of Lenkoran are exactly identical. I passed three days in the mountains and approached the Persian frontier, and the hills of Savolan, where they transport their bees for the summer harvest even from the Russian frontier. I desired to know the origin of these bees, and even at the risk of serious annoyances

I crossed into Persia in order to compare the Persian bees with our bees of Lenkoran. I was not, however, able to penetrate very far into that country. Nevertheless I saw what I wished to see, and I do not doubt the facts which I noted.

At Astor, a village situated on the frontier, half of which belongs to Russia and the other half to Persia, I had an opportunity to observe that the Persian bees do not differ in any way from the Lenkoranian. At Enzeli, Persia, they are the same as at Resht in Russia. In Enzeli I had the good fortune to meet a great lover of bees, an Armenian merchant, Mr. Paronianz. Profiting by his hospitality and our conversations, I succeeded in finding out all I wished to know without letting him see what interested me particularly. Over the dessert, prepared from excellent honey gathered from the orange and lemon trees which are found in the court yard of every Persian house, as in the great garden of the Kahn, planted in former times by Catholic monks, we conversed about bees and then about politics. Mr. Paronianz has quite a trade and makes frequent voyages to the south of Persia which has given him an opportunity of seeing things which I was not able to see myself. This has been all the easier for him, as he does not neglect the purchase of wax in the cities and villages of Persia, which he sells in Russia and even more distant countries.

The fact is that I was able to satisfy myself that the variety which interested me is found all over Persia. Only it does not get there at all from Lenkoran, but spreads out in all directions from the central part of Persia. Thus to be accurate, this variety should have been called, not "bees of Lenkoran," nor "Lenkoranian bees" but "Persian bees," in order, so to say, to dignify and emphasize their southern or central origin.

In consequence of natural and artificial multiplication, as well as transportation into the northern and northwestern regions, this variety has reached the steppes of Mughan and the banks of the Aras River, preserving its type in all its purity. Beyond these limits it mixes with other varieties and loses its color and its original character.

The queens of the Persian race are rather large, well proportioned, beautiful, and of a fine yellow color over the whole abdomen. They become particularly beautiful at the time of greates egg-laying, when the abdomen enlarges considerably. I did not notic that the queens are shy like those o other varieties; they are distinguishe besides by especial fecundity, and ar able to produce powerful colonies.

The males of this variety are equally as large as the males of the gra variety, but may be distinguished fro the latter by the small orange-colore dots and rather large yellow blotche under the wings and on the sides o the thorax and of the abdomen. I other respects these males are th same as those of other varieties.

The Persian workers are not in th least smaller than our gray Georgia bees, but are remarkable for thei beauty and their vivacity. The firs four segments of the upper part of th abdomen are of a vivid orange colo while the coat of fuzz, the abdome and the thorax, are of a clear yello The thorax above and where the fuz is longest and thickest is of a ver pleasing yellow shade. On combs white honey, if held toward the su these bees are of a very brilliant col the whole length of the abdomen, an appear transparent. Unfortunately was not able to take the exact dime sions of the cells, nor the measu of the parts of the body of the Pe sian bee.

As to the qualities and character this race, we were able to ascerta that they are noteworthy on accou of their adroitness and strength, b also by a great disposition toward ro bing. The Persians defend themselv bravely when attacked. Their stin are more painful than those of oth bees, and are nearly insupportable the spring. In viciousness the Pe sian differs little from the Russi (the northern variety), but appea almost as though more vicious. Ho ever, there are among their coloni as among the colonies of other kkind some families that are gentle enoug The Persians are very sensitive noises—to the sound of the voice, an uproar in the apiary. They do n like to have their brood-nest disa ranged, even during the chief harve when bees are generally better n tured. This bad quality renders th cultivation difficult. They do not b come much accustomed to him wl cares for them. What irritates the most is the light that enters the hi at the moment the brood-nest is e mined. In this case it is necessary to ake some precautions so that the bees o not dart all at once from the comb n which they are resting. Smoke tupefies them only for an instant; hey accustom themselves to it quicky. I have had considerable practice n the handling of bees, and have cerain ways of getting on with them dificult to explain, yet in working with ersian bees I am obliged to put on a eil and to employ in the examination nore time than for the other kinds. he Persians are spiteful in the highst degree. Some of them, after the rood-nest has been opened, do not ecome quieted down for two or three ays, and often attack people quite a istance away from the apiary.

As I stated above, the Persians are nuch disposed toward robbing Renoving a comb of honey from a hive f gray bees is sufficient to bring a ellow robber to the spot at once. In he spring and the autumn, when there s no nectar in the field, the Persians ttack the other bees, get rid of the uards, and skillfully rob the colonies.

During the summer a singular habit f the Persian bees is noticeable; they ollect in considerable numbers on the oard near the hive entrance and the ees which are leaving for the fields emain for some time before the enrance, as if they wished to warm hemselves in the sunshine.

This variety supports cold and hunidity in a surprising manner. I beame convinced of this upon seeing freuently the negligence with which hey are treated in the cold climate of he mountains, or in the low and hunid valleys of Persia and Lenkoran.

Persian bees are very industrious. hey do not show a desire to swarm requently, even in small hives, and an live in very large colonies, such as have often observed in the forests of enkoran:

In Lenkoran they keep them in horiontal rustic hives, made of oak or of sh wood, and they cannot increase ny more than when in the wild state n the hollows of trees. Moreover, the are which their keeper gives them annot be otherwise than injurious to hem.

To offset this in the forests they are ften attacked by the wax moth and he death's head moth, and generally uccomb in this struggle.

One of the qualities of this variety s that the bees start out earlier than he others for the harvest, and work on flowers that other honey-bees do not frequent. In addition to the observations made on the spot, in order to study certain peculiarities of the bees, I have had under observation for four years two colonies of Persian bees.

In conclusion I will say that of the twelve varieties of bees that I possess and have observed, the Persian bees are the most difficult ones to get on with. Perhaps they are inclined to be quarrelsome (sic), something I have had an opportunity to verify. Perhaps one can by dint of care, make of them an industrious and gentler race, but for the present, as they render it so difficult to care for them, it is natural that every apiculturist should prefer another variety—of which there are many here—a variety that Nature herself has rendered more agreeable and easier to raise. This year I will receive a colony from Swanatia, one from Van (Turkey in Asia) and one from Djelal-Ogli.

THE MANGROVE.

The Great Nectar Yielder Said to be Useful Otherwise.

In British Honduras, says the Clarion, the mangrove bark is fast becoming an important article of export. As the mangrove abounds all along our coasts and for a long way up our rivers, the supply is almost inexhaustible. The getting of the bark needs no capital aad the industry is therefore one which is essentially one for the poor man with energy to engage in. The bark is used for tanning and the demand is practically unlimited. How about Jamiaca getting a show? We have plenty of mangroves, and plenty of poor men, too, for that matter.—Jamaica Times.

ST. LUCIA, W. I.

There are now 250 colonies of bees in St. Lucia in modern hives, says the Jamaica Times, all being run for extracted honey; this being an increase of nearly 100 per cent, within the past year. Honey shipments are now commencing to go forward, and the industry is now reported to be firmly established in the island and promises to increase steadily. As regards the cotton industry in St. Lucia, the prospects are bright and encouraging.

Now, let us have a nice lot of good readable articles from which to select for the long winter evening's reading.

THE MEN TO WHOM OHIO BEE-KEEPERS ARE INDEBTED FOR THEIR FOUL BROOD LAW
E. A. PAINTER. FRED W. MUTH. D. R. HERRICK.
JNO. C. FROHLIGER. WM. J. GILLILAND.

HAMILTON COUNTY, O., BEE-KEEPERS' ASSOCIATION.

The annual meeting was held in the convention room, Grand Hotel Cincinnati, Monday evening, Sept. 12th at 8 p. m., when the following officers were elected for the ensuing year

President—Fred W. Muth.
Vice President—John C. Frohliger.
Treasurer—G. Green.
Secretary—Wm. J. Gilliland.

Executive Committee:
R. L. Curry,
A. E. Painter,
C. Kuck,
E. P. Rogers,
E. H. Chidlaw,
Wm. McLennan,
E. H. Vaupel,
Theo. Meyer,
Wallace Burch,
Dr. A. B. Barker,
Wm. R. Gould,
Miss Carrie Boehme.

The secretary presented his report s follows: The executive committee as much pleasure in presenting their econd annual report, which indicates continuation of the prosperous conition that has been shown since its rganization, a marked increase in membership, and a continued influence mongst bee-keepers in the immediate eighborhood, county, and adjoining tates.

The most important event of the ear, was the enactment into law of a ill for the treatment of foul-brood, nd the appointment of a foul-brood nspector under its provision. The romotion of this measure was underaken by us. Valuable assistance was endered by the Hamilton County Repesentatives, led by Mr. D. R. Herick, who took charge of the measure n the House, and exerted his influnce in pushing the bill to its final tages, and ultimate passage. This is he first attempt at legislation in the tate of Ohio, in the interests of the ee-keeping fraternity, and the Hamilon County Bee-Keepers may be ermed the "Pioneers of Bee Legislave Measures in the State of Ohio."

Next matter of importance in which e were instrumental in advocating, as the addition of a Honey-schedule nd premium list at the Hamilton ounty fair, at Oakley, Ohio. Quite n exhibit of extracted honey in jars, omb honey in sections and supers, ere exhibited, and substantial preiums were awarded to competitive members of our association. It is a fact that we regretted that more bee-keepers did not avail themselves of this opportunity to compete. We would remind them to make preparations early next year, and make a showing that would be alike creditable to the bee-keepers and to the influence of this society.

The year ends with fifty-eight subscribers on the roll of membership as compared with forty-seven last year, an increase of fully twenty-five per cent. This increase is made up principally of practical bee-keepers, who manifest a desire to learn the best methods in modern bee-keeping.

During the year, now ended, were held twelve regular and four special meetings, making sixteen in all. The attendance was a very good average, considering the variable weather, and long distances a great many of the members had to travel to attend the meetings.

Wm. J. Gilliland,
Secretary.

HARDSCRABBLE LETTER.

Ah-h-h. Huh! Huh!

What's the matter with me? Wal, I've been a cogitatin on what Brer Hutchinson had to remark on this yere feeding curse. He didn't take kindly to my comments. I'm sorry for that, cause W. Z. is a fine boy, means well, too, but gets biased onct in a while.

Now, this yere feeding. I say again, its a cuss to the industry, b'gosh. W. Z. gives the mossy, weather-worn explanations as how the bees kindly use up all the syrup and none on it gets into the supers. Durn strange how the accommodatin' little cusses never save any of the syrup , never tuck any of it in way back corners, never have any left when the supers go on. Goldurn queer how a good husky colony always keeps a supply of honey ahead of the brood wants (or abolishes the brood) and then wont do the same with sugar syrup. Whoppin big sight of explain billed to arrive along here. What a rumpus it do raise just to say feedin' should be prohibited. I wonder why? You don't s'pose it touches their pocket, do you? And the excusin' and explainin'!

"Ofttimes the excusin' of a fault
"Doth make the fault worse by the
excuse."

Huh! It's mighty nice to say, 'taint possible, things can't happen, just cause 'twould be "inconvenient" to have 'em happen.

As the devil can quote Scripture, I wonder how it would seem if I should say to the boys "Avoid the appearance of evil."

W. .Z thinks that the criticism of the sugar habit is straining for effect. Gosh all hemlocks, what in thunder do I want of effect? To intimate that the crop of a sugar feeder is increased is plub proper until he all can prove there ain't any sugar in it. Perhaps the sugarees can tell we uns how it happens that honey from their yards is so often flat and insipid. That's the word, insipid. Nice word. Perhaps they will elucidate the because why the onexpected caller so often finds feeders full of syrup "accidentally" left on during the harvest.

Fust thing Brers. Root and Hutchinson will be wonderin' how they came to play catspaw for the sugarees.

Too bad, Harry. Just suggest to the childer that if they must feed that they save honey to do it with and then the Korn Glucose Syrup fellers can't say plausable things about we uns.

Don't they? Huh! Go ask your grocer and he'll tell you "the childilke and bland bee boys feed sugar to get those nice white combs, and that sugar makes the whitest wax, for their books say so."

I didn't wander over the old earth for sixty odd years with my eyes and ears shut. No! Not by the great hornspoon I didn't.

Geewhillikins, but W. Z. is in for more trouble and he and Freddy Muth will feel as if they had been pulled from a bargain counter after A. I. R. gets through with them. Muth tells how he dressed Peebles show window on Saturday night so 'twould pull the "push" all day SUNDAY (wus than Monday papers that are printed on Sunday). Sinful Peebles, wicked wicked Muth, not to draw the curtains on Sunday, and naughty, naughty W. Z. to publish all about the glorious profit it yielded. Hot A. I. R. will singe 'em all right. Such fireworks. Phist-boom-ah, I smell 'em burning.

Where's my sheet? Oh ho! Them is stage properties used to attract your attention but now we're in touch I've dropped into my more comfortable rig. Smoke? Ha, ha, of course I do. Ah-h-h.

NOTES AND COMMENTS.

Gleaned by Mr. Getaz from L'Apiculteur and La Revue Electrique.

PUBLIC EXPERIMENTS.

THE EUROPEAN societies of agriculture and apiculture are in the habit of experimenting on whatever subjects may be deemed worthy of investigation. This is done by distributing to the members the necessary seeds, or other things, requesting them to experiment on certain lines and report. It is not compulsory to take part. When the reports are in, the results are publishe in the official paper of the society Right here, I may mention that ever society has an official journal, distributed gratis to the members, an in which all the reports of the societ are published. That does not necessarily mean that the society goes into th publication business. Usually arrangements are made with some of th standard papers. For instance, th Apiculteur is the official organ of th International Congress of Apiculteu and of eight apicultural societies.

If I go at length into these details i is because I think our American be keeper societies might follow such course with great advantage in man cases.

RELATING TO SWARMS.

Among the subjects of study of o of the French societies was the que tion of swarming. A series of que tions was sent, in 1902, to the me bers, with request to observe and r port. Here are some of the points a certained:

1. The swarming season in so far primary swarms are concerned, begi (average dates) May 28th and en June 30th. The extreme dates for t beginning have been so far May 17 and June 13th; for the ending, Ju 6th and July 4th.

2. The relative number of swar during the swarming season is abo one-fifth in May, one-half between t 1st and 10th of June, one-fourth b tween June 11 and June 20, one-ten after June 20th.

3. The earliest coming out of swarm was 8:5 a. m., and the late 4 p. m. These are extreme limits. T average number were as follows: Fi per cent. before 10 a. m., twenty-t per cent. between 10 and 12, fifty-s per cent. between 12 and 2 p. m., f

een per cent. between 2 and 3 p. m., wo per cent. after 3 p. m.

4. Among the points to be observed vas the atmospheric pressure—that is, vhether the barometer is high or low. Che result was that eighty-five per ent. of the swarms came out on days vhen the barometer was at 760 mm. nd above, and only fifteen per cent. vhen below none at all when below '50 mm. It must be noted here that hese observations were made in the ortheast part of France where a fall f the barometer is always accomanied by damp and rainy weather. I hink the state of the atmosphere ught to have been observed in conection, that is, whether the weather vas clear or cloudy.

5. Eighty-two per cent. of the warms came out during light winds r calm weather, and eighteen per ent. during medium winds.

6. Eighty-nine per cent. of the warms came out when the temperaure (in the shade) was above 68 F., nd eleven per cent. when below. The owest temperature observed was 61 legrees, and the highest 77 degrees. hat the summer temperature of orthern France is much below that f nearly the whole United States, and f no swarm issued at a higher temerature it is because such temperaure did not occur.

7. Eighty-six per cent. of the warms come out when the sun was hining on the hive entrances. That s nearly nine out of ten. This goes o show the importance of shading in ot weather. and of sufficient ventilaion—in a word, to avoid having the olonies suffering from over-heating. Further observations will appear n a future number.

POSITION OF ENTRANCES.

Mention was made in a previous umber of the experiments of Mr. ichards, who obtained about five imes more surplus when the entrance f the hive was between the brood-est and the supers than when it is elow the brood-nest. Mr. A. G. of N. Isere) went this summer "one beter." On some of his colonies, he put he entrance as Mr. Richards, and on ome above the supers, under the covr, or, rather, under the roof, for all uropean hives out in open have a egular additional roof-like cover. The esults were that, while the colonies vith the entrance below filled one suer or thereabout, those with the entrance between the brood-nest filled about five, and those with the entrance above the supers six. As Mr. A. G. is one of the leading writers of the Apiculteur, his statement can be accepted. What I would like to know is, how much brood and honey were in the brood-nest, especially at the end of the season.

UNITING FOR THE HONEY FLOW.

Mr. C. M. Weber unites his colonies two by two during the honey flow. The two colonies are sprinkled with water to which some extract has been added, to give them the same scent. One of the colonies is unqueened and placed on the top of the other. A queen excluder is placed between the two, so as to confine the queen below. Both entrances are left open and Mr. Weber says the bees use both equally well. If possible, the colonies united should be those close together and the united concern placed between the two old stands. At the end of the flow, the two colonies are separated, the brood equally divided between them and, of course, a queen given to the queenless one. The queens removed at the time of uniting may have been kept in nuclei, or young ones can be provided.

BEE STINGS FOR RHEUMATISM.

In a previous issue, mention was made of Dr. Langer's study of the bee venom. Since that time, he has received a number of inquiries upon the effect of the bee stings in case of rheumatism. In a recent communication, he states that he has no experience in that line himself, but quotes Dr. Terc, of Marburg. Dr. Terc has used bee stings for the cure of rheumatism for quite a number of years. In 1888 he reported having applied already some 39,000 stings to 173 patients. In 1903, he presented an extensive report on the subject to the Imperial Society of Medicine, of Vienna. More than five hundred persons have been treated. The remedy is sure against the rheumatism of articulations, whether chronic or temporary. The sooner the treatment is begun, the better. None of the persons treated showed any affection of the heart. The remedy is also effective in cases of muscular or neuralgic rheumatism or pains. It is slower, but much surer than the salicylic acid or other remedies usually employed. It is not to be applied to very young children, very old people, or those affected by anemia, tuberculosis, inflammation of kidneys or fever. In case of heart disease, it must be avoided, as it might cause death, and if after beginning the treatment any symptom of heart trouble appears, it must be stopped. Dr. Terc thinks the cases reported of people dying of a few bee stings were persons already having some far advanced heart trouble.

The method is very simple. The operator takes the bee between the thumb and index finger and applies the "business end" to the patient. The sting is left for some minutes before taken out. The treatment is begun by one to three stings a day, and then increased gradually to one hundred or even more. The treatment lasts one or two years in serious cases. If the tissues or articulations are already altered or degenerated, nothing can restore them. Not everybody will consent to adopt such a course, yet Dr. Terc, during the last 23 years, has treated over five hundred persons.

The problem is now to obtain a serum or some other way to apply the remedy in a more convenient way.

THE
Bee-Keeping World

Staff Contributors: F. GREINER and ADRIAN GETAZ.

Contributions to this Department are solicited from all quarters of the earth.

AUSTRIA.

Michael Ambrosic, a well known breeder of Carniolan bees and dealer in bee-keepers' supplies died recently. The writer of this has some letters on file from this gentleman, referring to the characteristics of the Carniolan bee. He must have been a wide-awake man. His inquiries regarding tools and hives and methods in vogue here among the Americans, which I have had the pleasure of answering, are a proof of this.

ENGLAND.

A certain English lord, after having been cured of rheumatism by his family physician paid him three hundred pounds sterling for the recipe of the medicine that cured him, that he might give it to the public. Here it is: "One ounce of sulphur; one ounce tartaric acid; one-half ounce rhubarb; one dram Gugaca gum; sixteen ounces honey."

GERMANY.

Hensel, who writes the monthly instructions for bee-keepers in "Die Biene," says, one day when passing a fancy store in Leipzig he discovered in the show window extracted honey exhibited in one, and one-half pound glass jars. The label read as follows:

PUREST Blossom HONEY.
(mixed with sugar syrup)
Per pound, 1.00 Mark.
Half pound, .60 Marl

The words, "mixed," etc., were print ed in the smallest type, very apt t be overlooked. It will be seen that th world is about the same everywher

Accordng to observation made b H. Ritter, the false drone (offspring o a worker) requires twenty-one day for its development. The normal dron (offspring of a queen) requires twent four days. It would seem from thi that there would have to be some dif ference in the resulting insects. I this line Dickel says, in Die Bien that there is a marked difference foun in the third pair of legs. That part o the leg which is called the pollen bas ket in the worker bee is in norma drone and queen convex and in th former almost always bare; in th false drone it is regularly shaped an nearer that of the worker.

Dr. Kuehl reported at the grea Wander-Versammlung (bee-keeper union) of German, Hungarian, Aus trian and Switzerland bee-keepers, tha the average yield per colony from th tines alone run between eighty and on hundred pounds. The convention wa ıeld in Doonbion, and was well attended. The whole city was decorated and the authorities and the dif- erent societies spared no pains to nake it pleasant for the bee-keepers. I may report more of this convention ater.—F. Greiner.)

Wurth finds a queen in a new warm this way: After the swarm s well gathered it is dumped out or haken off onto a clean piece of round (we here use a white sheet) nd the hive is set near it. When the ees begin to enter the hive, the latter s gradually moved back and the bees re thus forced to spread out thinly. he vigilant eye of the bee-keeper can- hus easily discover the object he is fter.

When a large number of colonies are be moved into the Heath, Rud. athe recommends, in Centralblatt, to ıke a load of the strong colonies first. ext, and a few days after, move a ad of weak colonies and place them here the strong ones have stood, iving the latter ones new locations. hus they are hindered from swarm- ıg and the weak ones are greatly enefited. It will be remembered that ı the heath sections, straw-skeps are ı general use, and the bees do a eat amount of swarming. Small aft- -swarms, with their young queens, ay be converted into good strong varms by the above method, and it rikes me that perhaps we might prac- ce a similar plan when moving into ıckwheat.—(F. G.)

A. Boehme, in speaking of the hacelia, says in Centralblatt: The hacelia is a better pollen producer ıan honey yielder. Does not do well ıring the latter part of the season. ıerefore secretes honey at a time hen other blossoms furnish plenty, quires rich ground. During wet eather the flower heads draw too uch moisture and hold it; consequent- bees are often prevented from work- g on it. As a crop the plants lodge ıd rot badly. I do not consider it a ofitable crop to grow. During wet eather it is difficult to harvest the ed.

H. Guehler estimated the value of e average honey crop in Germany at ,000,000 marks. He also says that rmany does not produce, and never s, its supply of honey, and that a large share is imported from Hungaria, Italy, California, Cuba, Brazil and Australia. Some Brazil honey ranks equal to German honey; other American honey does not.

A large share of the table honey is mixed—using beet sugar as a basis and adding a little heath honey to color and flavor. A great deal of money is made with this substitute. The city of Berlin is one of the heaviest consumers of extracted honey. What Guehler deplores most is the fact that there are a number of extensive bee-keepers (having as many as three hundred colonies each) who use their bee business as a means of advertising their foreign and mixed product. At most, he says, they can produce fifteen thousand pounds of honey in a year. Some years the three hundred skeps produce no more than three colonies, and yet they maintain a wholesale business, selling great quantities of honey, making it appear as though it was all the product of their own bee-yards, thus misleading the consumers.

To bleach wax and make it white it is exposed to sunlight in moist atmosphere, and in very small particles. The process requires from five to six weeks, unless one and one-fourth to one and three-fourths per cent. of turpentine has been added to the wax, when the time may be shortened to six or eight days, so says Pr. Wegw.

BOHEMIA.

All the preparatory work for winter should have been finished by the last of September. Bees should not be disturbed after this. The best time to judge the strength of a colony of bees is—not during the noon hours, but early on a cool morning. The quantity of winter stores a hive contains may be guessed at. Weighing not necessary.—Boehm in Deutsche Imker.

The advice by F. Tobish in the same paper to winter bees upon good healthy honey is cheap. The question is what is such honey? How can we positively know it? In another place of the same paper Friend Tobish expresses some other ideas which I have found to be correct: The use of the drone trap is not to be recommended. Regulate the output of drones by allowing but a small amount of drone-comb. Drones are necessary. The observing bee-master will find the drone to be an indicator of prosperity, or want, etc.

Small colonies with young queens may be safely wintered if properly cared for. Many times, yes, very often. One of these small colonies will outstrip the populous one the following season. There is vim in them.

CHINA.

There are two kinds of bees found in China. The large vicious bee is never molested by the natives. The small black bee builds its nests on the underside of large limbs. The natives hunt the nests and often obtain large amounts of honey and some wax from them.

BELGIUM.

The Rucher Belge quotes from a German paper an assertion as to whether the more water the honey contains, the less it is liable to candy. Mr. Stachelhausen contests the proposition. He says that in America (that is, the United States) the honey is heated in order to evaporate as much water as possible, and the less water is left, the less are the chances of candying. That heating the honey will prevent candying is certain, but it is not caused by evaporation. At the temperature used (120 degress F.) the evaporation is insignificant. Sometimes the honey already candied is liquefied simply by putting the jars or other vessels in warm water, without opening them. In such cases there is no evaporation at all. The explanation must be sought in some other direction,

Honey is chiefly composed of two sweet substances in variable proportions. One is called dextrose, and it crystalizes comparatively easily. The other, called levulose, crystalizes only under exceptional conditions. The treatises on chemistry tell us that the application of heat or the presence of an acid gradually transforms the dextrose into levulose. I suppose this is what takes place when the candied honey is heated. The less dextrose the mixture contains, the less are the chances of candying.

The Layens hive is very much used in Europe. It is a one-story hive for extracted honey something near what we call the "Long Ideal" hive. Occasionally the queen lays a little in almost every comb, instead of concentrating her brood on a few. To obviate this, a correspondent of the Rucher Belge advises to leave the necessary number of combs for the brood separated at the usual distance. The others are to be put considerably farther apart. The bees extend the length of the cells accordingly, and being entirely too deep for the queen to lay in, she omits them. There are other advantages. Less number of combs for the same quantity of honey means less original cost, less work for the bees to cap them and less work for the apiarist when it comes to uncapping and extracting.

The question whether bees can o cannot transport the eggs has neve been completely settled. Now an then some incident comes to ligh which seems to show that they do it at least, under some special circumstances. To the few cases alrea quoted in these columns the followin can be added: A correspondent i visiting a colony that he knew to hav been without a queen for some tim was surprised to find two queen cell occupied, but no other brood. H finally remembered that some days before, he had put on the floor of tha hive a piece of broken comb containin some honey and a few eggs. Undoub edly these two cells contained egg transported from the broken piece.

A NEW NATIONAL ORGANIZATION.

The Bee-Keepers' Review says: " National Honey Exchange was born the St. Louis convention. Five pra tical bee-keepers, widely scattered ove the country, were chosen as a con mittee to draft a constitution and b laws, and something like $700 worth stock, at $25 a share, was subscribe for on the spot. This may be the e tering wedge that will eventually rais producers to a higher plane in the sel ing of their honey." This has som thing of a harsh metallic ring chara teristic of modern business method and is in pleasing contrast with t rather doleful tone of the old bell bu on the shoals of Foreign Competitic which has lately been permeating t apiarian atmosphere. The constit tion and by-laws of the Nation Honey Exchange, when ready, will very interesting reading for honey pr ducers.

THE AMERICAN BEE-KEEPER

PUBLISHED MONTHLY.
THE W. T. FALCONER MANFG. Co.
PROPRIETORS.
H. E. HILL, - EDITOR,
FORT PIERCE, FLA.

Terms.

Fifty cents a year in advance; 2 copies 85 ents; 3 copies $1.20; all to be sent to one ostoffice.

Postage prepaid in the United States and anada; 10 cents extra to all countries in the ostal union, and 20 cents extra to all other ountries.

Advertising Rates.

Fifteen cents per line, 9 words; $2.00 per ch. Five per cent. discount for two inser- ons; seven per cent. for three insertions; wenty per cent. for twelve insertions.

Advertisements must be received on or be- re the 15th of each month to insure inser- on in the month following.

Matters relating in any way to business hould invariably be addressed to
THE AMERICAN BEE-KEEPER,
Falconer, N. Y.

Articles for publication or letters exclusi r the editorial department may be addressed
H. E. HILL,
Fort Pierce, Fla.

Subscribers receiving their paper in blue rapper will know that their subscription ex- ires with this number. We hope that you ill not delay favoring us with a renewal.

A red wrapper on your paper indicates that ou owe for your subscription. Please give e matter your earliest attention.

Editorial

J. A. Green says in Gleanings, ith regard to different kinds and ualities of propolis, "Remember there more in 'locality' than some people re willing to admit." There are greener" people than J. A.

With reference to the St. Louis con- ention all are agreed upon one point: It was a harmonious meeting." Not a ery broad claim for a national assemblage; but, doubtless, a gratifying result to certain participants.

Mr. J. W. Tefft, Buffalo, N. Y., who has spent the summer in Southern California, writes that a most deplorable condition of affairs exists in the apiaries of the southern countries of the state. Starvation and feeding to save the bees is the substance of the matter.

The two-pound, and the half-pound sizes of section, which used to strive for a place in the honey market, have been crowded out by the medium-size —one-pound. The late "tall section" fad is the only menace to loom up before the very desirable condition of uniformity in American comb honey packages.

It may work no great injury, either to the fraternity or the public, for an apiarian journal to publish erroneous statements in regard to minor details relative to the pursuit of apiculture; neither will it tend to establish or develop prestige in favor of the periodical which indulges in this loose style of journalism.

During the past month we have received applications for certain back numbers of The Bee-Keeper which we were unable to supply. Volume XIII is practically exhausted, there being but a very few copies, of two or three numbers, left in the office.

Preparation for mailing the next edition of The Bee--Keeper begins on the 18 of the preceding month, hence, renewals received after that date fail to appear in the plain wrapper until the month following. The addressing of several thousand wrappers each month takes time, and the work has to be commenced as early as the 18th, and it is impracticable to hunt out a red and substitute a plain wrapper after the work of addressing has been commenced. We trust this explanation will make clear to our readers why it is that the proper credit is not always promptly indicated by the wrapper after renewal is sent in.

Texas bee-keepers may now subscribe through the Hyde Bee Company, 129 North Flores St., San Antonio. H. H. Hyde, the hustling apiarist of the Lone Star State is in charge, and will take care of all applicants.

THE NATIONAL NOMINATIONS.

With a view to greater concentration of votes than has heretofore prevailed at the annual election of officers and directors of the National Bee-keepers' Association, an informal ballot, by means of postal cards, was taken recently to place in nomination candidates preferred by a mapority of the membership. Heretofore the ballots have been unduly scattered, as a result of there being absolutely no system in regard to nominations, and the new plan promises to afford relief for those who desired to cast their vote for the most popular candidates, yet were wholly without means whereby these "popular" ones might be ascertained. However, members are still at liberty to vote for whom they please, regardless of the regular nominees. Members will bear in mind the fact that the first two in each list, having received the highest vote, are considered the candidates. The result of the ballot is as follows:

For President—J. U. Harris, C. P. Dadant, Dr. C. C. Miller, Geo. W. York, A. J. Cook, A. I. Root, E. T. Abbott, W. A. Selser, G. M. Doolittle, R. C. Aikin, E. Whitcomb, R. L. Taylor, H. E. Hill, W. Z. Hutchinson.

For Vice-President—C. P. Dadant, J. F. McIntyre, Geo. W. Brodbeck, Geo. W. York, Dr. C. C. Miller, G. M. Doolittle, W. L. Coggshall, J. Hall, J. U. Harris, E. R. Root, Wm. McEvoy, O. L. Hershiser, J. Johnson, H. Moore, W. H. Laws, W. Z. Hutchinson, H. H. Hyde, R. C. Aikin, F. Greiner, F. Fouch, E. T. Abbott, W. A. Selser, Frank Benton.

For Secretary—W. Z. Hutchinson, Geo. W. Brodbeck, W. H. Laws, S. A. Niver, L. H. Scholl, E. T. Abbott, G. F. Davidson.

For General Manager—N. E. France, L. H. Scholl.

For Director, to succeed E. Whitcomb—E. Whitcomb, H. H. Hyde, F. W. Muth, H. E. Hill, J. F. McIntyre, Geo. W. Brodbeck, W. Z. Hutchinson, J. A. Green, James Heddon, A. J. Cook, E. Pratt W. Alexander H. Mendleson, A. Carmichael, Wm. Stolley, E. Gannson, M. Dearby.

Director to succeed W. Z. Hutchinson—R. L. Taylor, J. Q. Smith, W. Z. Hutchinson, Geo. W. Brodbeck, F. W. Muth, M. A. Gill, W. L. Coggshall, Geo. W. York, Eugene Secor, C. P. Dadant, H. Surface, J. W. Rouse, E. S. Lovesy, Wm. Cary, J. U. Harris, H. Mendleson, C. Stewart, E. Alexander, F. Rauchfuss.

Director, to succeed Udo Toepperwein—Udo Toepperwein, E. S. Lovesy, Dr. C. C. Miller, H. H. Hyde, J. Q. Smith, E. T. Abbott, F. L. Allen, L. H. Scholl, E. R. Root, F. Brown, W. H. Laws, W. Victor, H. S. Ferry, Frank Benton, E. J. Atchley, Gus Dittmer, H Lathrop, Emma Wilson, C. Stewart L. Stachelhausen, E. F. Atwater.

While the editor of The Bee-Keepe deeply appreciates the honor, and th evident good will of the unknow friends who have placed his name i nomination for these offices, he believes that he can better serve the interests of the fraternity by remainin as at present, on the outside, free an unfettered; and we therefore kindl ask our friends to waste no votes upo the writer, in this connection. Messrs F. W. Muth and H. H. Hyde ar doubtless free and eminently qualifie to serve the interests of the association, and we do not hesitate to plac upon record the wish that both may b honored with a place on the board o the National. We have reason to believe that both these gentlemen ar not only capable and willing to assume the duties of director, but tha their motives, like the product whic they handle by the hundreds of ton are "pure and wholesome." Doubtles the list of regularly nominated cand dates, as well as that of the man others whose names have been su gested, are not less so. It is con prised very largely of bright stars i the apiarian firmament.

LOOK UPON THIS PICTURE. AND THEN ON THI

Charity is a virtue which has n been developed to its fullest a broadest extent in all men. Like small, or declining colony of bees, is sometimes well to stimulate mode ately, in the development of this, tl "greater of the trinity of greatest vi tues—charity." With no other wis than that of stimulating charity, tl editor deems it prudent to quote fro two letters recently received from p trons of The Bee-Keeper. The firs is from a western bee-keeper who h invested twenty-five cents in adverti ing a ten-cent article in our colum The second, from a permanent adve tiser who lives in a foreign countr The extracts follow:

"The appearance of ——'s reply

The Bee-Keeper has marred the paper n my sight ever since. My ad brought n just two ten-cent orders. This together with the looks of the rest of he A. B. K. ads made me to change ny opinion of the importance of the ournal."

This is No. 2. received in same mail: "I have been receiving orders by early every mail — last steamer rought $11.00 from several different tates. There is no doubt as to the merican Bee-Keeper being the best ee journal now published in the Engish language."

If everything appearing in The Bee-Keeper is not entirely to the taste of he reader, he should exercise a deree of charity, remembering that not ess than five thousand persons read very issue of the paper, and though e should like very much to be able to lease them all, it is impracticable to o so. We have, however, the personal ssurance of thousands that they are ery much pleased with our efforts to ssist and interest them. Those who nd The Bee-Keeper disagreeable are uite at liberty to transfer their patonage to other publications, more satfactory.

The Bee-Keeper continues to inrease and grow stronger each day; nd much gratitude is due our many eadfast friends for this success. We eartily assure them they have it.

EE JOURNALS OF THE WORLD.

Some time ago the Western Bee ournal published the statement that here were about eighty-five bee jourals published in the world. The atement has apparently been of reat interest, and further information to what these many journals are nd where they live, is sought. We elieve it will be of general interest our readers to see the list, and we erefore give it below, from the Trade ress List, of Boston, with but slight vision. So far as we know, those hich follow are all exclusive bee urnals, though we have not the hon to claim a personal ecquaintance ith each one. The abbreviations ter the names indicate the periods of ublication—w., weekly; s. m., semionthly; m., monthly, etc:

Bltn. Societe d'Apiculture de Tunisie, , Tunis, Algiers.

L'Abeille, s. m., (Au Ruisseau) par ouba, Algiers.

Illustrierte Monatsblaetter f. Bienenzucht, m., Klosterneuburg, Austria.

Deutsche Imker aus Boehmen, Aus-Prag, Bohemia, Austria.

Vcela Moravska, m., Prag Bohemia, Austria.

Munchner Bienenzeitung, s. m., Munchen, Austria.

Oesterr, Ungar, Bienen-Zeitung, Vienna, Austria.

Bienen-Vater m., Vienna, Austria.

Autralian Bee Bulletin, m., West Maitland, N. S. W., Australia.

Australasian Bee-Keeper, m., West Maitland N. S., Australia.

L'Abeille Luxembourgeoise, m., a Arlon, Belgium.

L'Apiculteur Belge, m., Biez, Belgium.

L'Abeille et sa Culture, m., Huy, Belgium.

Die Bie, m., Herenthals, Belgium.

Le Progres Apicole, m., Mont-sur-Marchienne, Belgium.

Le Rucher Belge, m., a Prayon-Trooz, Belgium.

L'Abeille et sa Culture, m., Huy, Bel.

De Bienenvriend, m., St. Ghislain, Belgium.

De Mandelbie, m., Rosselare, Belgium.

Canadian Bee Journal, m., Brantford, Canada.

Tidskrift for Biavl, m., Kalundborg, Denmark.

Les Abeilles et les Fruits, m., Mazieres, Chevillon Ht. Marne, France.

L'Abeille de l'Aisne, m., Laon (Aisne) France.

L'Union Apicole, m., Chateauroux (Indre) France.

Bulletin de la Societe d'Apiculture de la Meuse, m., Bar-le-duc, France.

'Abeille Alpine, s. m., Ecole (Sa-France.

Bulletin du Rucher des Allobroges, m., St. Jean de Maurienne (Savoie), France.

L'Abeille, Bourguignonne, m., Joigny (Yonne), France.

L'Abeille Alpine, s. m., Ecole ((Savoie) France.

Le Miel, m., La Roche-Yon (Vendee) France.

La Gazette Apicole de France, m., Montfavet (Vaucluse), France.

L'Abeille de l'Est, bi-m., Nancy, France.

La Ruche, 6 times a year, Nogent Seine (Aube), France.

L'Apiculteur, m., Paris, France.

L'Abeille des Pyrenees, m., Pau (Bse P.), France.

Bltn, de la Societe de Apiculture de la Somme, e-o-m., Peronne (Somme), France.

L'Abeille de Merillac, m., a Merillac ((C. d. N.), France.

L'Abeille du Rouergue, m., St. Geniez (Aveyron), France.

Revue Eclectique d'Apiculture, m., Sainte-Soline (Deux Sevres), France.

L'Abeille, m., Troyes, France.

Praktischer Wegweiser, m., Oranienburg-Berlin, Germany.

Imkerschule, m., Flacht, Germany.

Praxis der Bienenzucht, m., Charlottenburg, Germany.

Bienenwirtschaftliches Centralblatt Hannover, Germany.

Leipziger Bienen-Zeitung, m., Leipzig, Germany.

Bienen-Zeitung, m., Luxemburg, Germany.

Bltn. de la Societe d'Apiculture d' Ais.-Lne., Mundolsheim, Germany.

Rheinische Bienenzeitung, m., M. Gladbach, Germany.

Pfalzer Bienenzeitung, m., Rehborn, Germany.

Bienenzucht, m., Thuringia, Germany.

Bienenflege, Hoheim, Wurttemberg, Germany.

Maandschrift voor Byenteelt, m., Bevernogk, Holland.

L'Apicoltore, m., Milan„ Italy.

Corrispondenza Apistica, m., Orsonna (Abruzzi), Italy.

Il Risveglio Agricolo, m., Teramo, Italy.

Maandschift, Voor Bisenteelt, Veverwijk, Nederland.

El Apicultor, m., Barcelona, Spain.

El Colmenero Espanol, m., Barcelona, Spain.

Scheweizerische Bienen-Zig, m., Ali staten (St. Gallen), Switzerland.

Tidskrift for Biskjotsel, m., Christiania, Norway.

Bitidningen, m., Helingsborg, Sweden.

Westnik Inostrannoy Literature Pchalovodstva, St. Petersburg, Russia.

Pchelovodstvo, Viatca, Russia.

Pchelovodniy Musey, Stavropol, Kawcasskiy, Russia.

Jurnal Cungurscago Obshestvo Pchelovodstva, Cungur Perm, Russia.

Pchela, Ecatereneslavi, Wremennii, Russia.

Obozrenie Pchelovodstva, Costroma, Russia.

Westnik Russcago Obshestva Pchelovodstva, Costroma, Russia.

Mezelane, Revel, Russia.

Russkiy Pchelovodniy Listok, Petrovoko-Razumovskoe, Moscow, Russia.

L'Amicul Progressului Romaian, m.
Strada, Conei, 65, Busuresci, Rouman
ia.

Bee-Keepers' Record, m., London
England.

British Bee. Journal, w., London
England.

Irish Bee Journal, m., Lough Rym
Dromod, Ireland.

Western Bee Journal, m., Hanford
Cal.

American Bee-Keeper, m., office
Falconer, N. Y., and Fort Pierce, Fla

American Bee Journal, w., Chicag
Ills.

Bee Keepers' Review, m., Flin
Mich.

Progressive Bee-Keeper, m., Higgin
ville, Mo.

Gleanings in Bee Culture, s. m., M
dina, Ohio.

Rural Bee-Keeper, m., River Fall
Wis.

Dr. Miller, in Gleanings, queries
to whether there may not be a diffe
ence as to the crossness of bees in di
ferent years. Probably every expe
enced bee-keeper has observed th
different days produce different infl
ences upon the mood of the bee, no
withstanding the existence of simil
conditions in so far as relates to na
ural food supply, etc. If such contra
influences are exerted without appa
ent cause during two successive day
it is not improbable that certain yea
may be, more largely than othe
made up of days in which this evil i
fluence predominates. Environmen
influence humanity very perceptib
Why not the bee?

J. A. Green, in Gleanings, observ
that, while "back in Illinois," he s
dom found it of any benefit to put t
honey knife in either hot or cold w
ter. When extracting alfalfa hon
in Colorado, a hot water bath is
sirable. This is an instance in whi
experience has qualified a writer
advise wisely outside of his own
cality. Too many who pose as
structors General for the univer
have naught upon which to base th
very firmly-rooted beliefs and advi
but an experience of greater or le
duration in some one county of t
many widely different States. A h
water bath for the uncapping kni
greatly facilitates smooth, easy wo
under certain conditions, in ma
parts of our big country. Two kniv

—one heating while the other is in ise— is a most satisfactory arrange-nent under such circumstances.

VE'RE NOT THE “ONLY PEBBLE.”

The one great problem with publish-rs of periodical journals, etc., is that f how to most expeditiously build up a irculation of paying proportions. No uch publication can long subsist un-ess it succeeds in gaining friends and atrons enough to give it advertising nerit. All kinds of methods are rought into requisition with a view o establishing and maintaining a prof-table circulation—some offer premi-ms; some institute special low-rate rial subscriptions; some endeavor to ive such excellent value that every-ne who becomes acquainted with the aper will avail himself of the bene-ts it has to offer; others club with amily magazines at ridiculously low ates, etc., etc. The latest method, owever, recently adopted by one of ne young bee journals is that of en-eavoring to impress upon its readers nat its contemporaries are secretly ar-ayed against the interests of the oney producer, and accordingly insin-ating that the older journals should e dropped and the more worthy youth ubstituted. That is, the new journal n substance, asks to be sustained at ne expense of the lists established by ne older periodicals. In other words, ne pitiful appeal of the new publisher : Stop taking the other journals and ake mine.

We shall not question the benignity f the new publisher, nor his sincerity n wishing to assist bee-keepers; but om our view point it appears that if ver a publisher assumed a mistaken olicy, this one has done it. Not to ex-eed one in ten of those who keep bees n the United States now take a bee ournal. The field does therefore not ppear to be so much overcrowded that new comer must necessarily feed up-n the honest accumulations of its co-orkers in order to exist. The Amer-an Bee-Keeper regards such tactics s savoring very strongly of jealousy, ingled with unmistakeable odors of reed and selfishness.

We have not a single name upon our st which is not esteemed, and we hould like very much to be able to ave each and every one remain with s while we continue to add many hers, so that a better and larger jour-al may the sooner become possible; but we delight in the thought that we have several most worthy, bright, clean and valuable competitors in the field with (not against) us, and all merit patronage and success.

We want thousands more to take the American Bee-Keeper, and hope they may do so; but we are disinclined to insult our intelligent readers by telling them that this is the only worthy bee journal published. There are others and we are glad of it. We wish them all success.

STILL ADVANCING.

At no time during the history of its present management has The Bee-Keeper received so many complimentary letters from its readers; nor have we ever had a greater quantity of excellent material on hand for publication. Still we need more good material and ask our friends to kindly help us in the effort to fill every issue with interesting and spicy matter during the coming winter. If each present subscriber would send us one new patron soon, we could add sixteen to twenty-four pages with the beginning of the new year.

That it it not difficult to secure new subscribers, when a little effort is put forth in that direction, is evidenced by the fact that during the past season many of our readers have sent in from ten to thirty new subscribers each. We will greatly appreciate the reader's kind assistance in this matter; and we will be mutually benefited thereby.

Why a freezing temperature is so much more disastrous to bees confined in a cellar than it is to those wintering upon the summer stand, in the open air, is a question now agitating the minds of the sages of beedom. Several of the “ great guns,” as well as some of the lesser lights, have been guessing as to the “why;” and some of the guesses are quite interesting, if not altogether tenable. Why can not American Bee-Keeper readers indulge somewhat in this guessing contest. No coupon is necessary—guesses are free.

With the next issue we shall have completed fourteen years of publication without the slip of a belt or cog. The next fourteen years will be easy. The American Bee-Keeper has gained strength constantly, and is permanently established, far beyond the experimental stage.

HONEY DEALERS' DIRECTORY

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Cincinnati, Sept. 15.—There is an improvement in the honey market, so far as extracted honey is concerned. The demand has increased considerably, but the supply is limited, owing to the fact that bee-keepers in general are mistakably holding their crop for better prices. We quote amber extracted, in barrels, at 5½ to 6 cents.

The comb honey situation is badly demoralized, being aught but encouraging. Quote fancy white clover comb honey at 14 to 15 cents. Beeswax, 26 and 28 cents.

The Fred W. Muth Co.
No. 51 Walnut St.

Chicago, Sept. 9.—The market is now showing more activity. Some small lots of fancy white clover have been sold at 14c per pound, with No. 1 ranging at 12c to 13c. Very little call for other grades. Extracted white brings 6c to 7c; amber 5c to 6c, according to quality, flavor and style of package. Beeswax, 28c to 29c.

R. A. Burnett & Co.
199 South Water St.

Kansas City, Mo., Oct. 10.—The supply of honey is fairly good, with demand somewhat limited. The continued warm weather curtails the demand for honey, though we look for increased demand with the advent of cold weather We quote our market today: No. 1 white, $2.75 per case. Extracted, 6 to 6½c. Beeswax, 30c. C. C. Clemons & Co.

Boston, Oct. 11, 1904.—We quote our market for white comb honey from 16 to 18c. For No. 1, 14 to 16c. There is a good demand, and receipts are not excessive. Extracted honey wanted, with practically no stock on hand.

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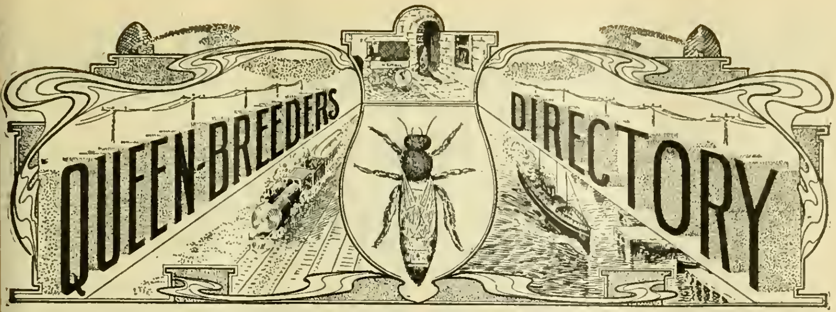

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Opportunities for making money out of bee-keeping were never greater. If the bee-keeper with a single apiary, from which he makes a living in a good year, and nothing in a poor year, would only arouse himself to the

Changed Conditions

secure a good location, if not already in possession of one, adopt such methods as will enable him to branch out and manage several apiaries, he will find that in a good year he can

Pile up Honey

ton upon ton—enough to support himself and family for several years. The Review is helping bee-keepers to accomplish this very thing.

The First Step

in making money as a bee-keeper is the securing of a good location; and the Review even goes so far as to discover and make known desirable, unoccupied locations.

Get Good Stock

Having secured the location, the next step is that of stocking it with bees of the most desirable strain; and, having had years of experience with all the leading varieties of bees, the editor of the Review is able to, and does, tell his readers where to get the best stock. Still further, the Review tells how to make

Rapid Increase,

how to build up ten or a dozen colonies, in a single season, into an apiary of 100 or more colonies.

Having the location and the bees, the bee-keeper must learn how to manage them so as to be able to establish an out-apiary here, and another there, and care for them with weekly visits—yes, by monthly, or even longer, visits, when extracted honey is produced. It is in teaching bee-keepers how to thus

Control Swarming,

that the Review has been, and is still, doing its best work. If a man only knows how, he can care for several apiaries now as easily as he once cared for only one.

Having secured a crop of honey, the next step is that of selling it. This is the most neglected, yet

The Most Important Problem

of succesful, money-making bee-keeping, and one that the Review is working the hardest to solve. So many men work hard all summer, produce a good crop, and then almost give it away. The Review is trying to put a stop to this "giving it away." It is showing, by the actual experience of enterprising bee-keepers, how the leisure months may be employed in selling honey at prices that some of us would call exorbitant. The men who have done this tell how they did it.

The editor of the Review has a wide, actual, personal acquaintance with all of the

Leading Bee-keepers

from Maine to California, and is thus able to secure, as correspondents, men who have scattered out-apiaries widely, managed them with little or no help and made money. These men are able to write from actual experience—they know how they have succeeded, and can tell others.

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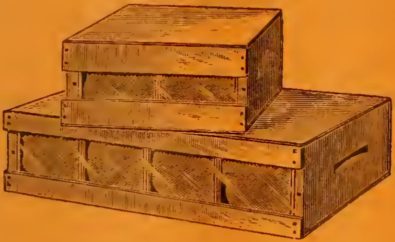

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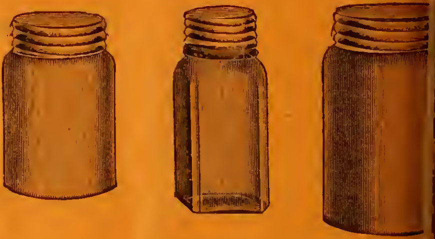

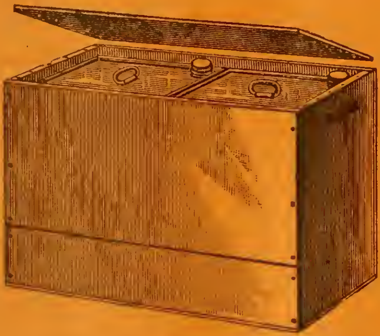

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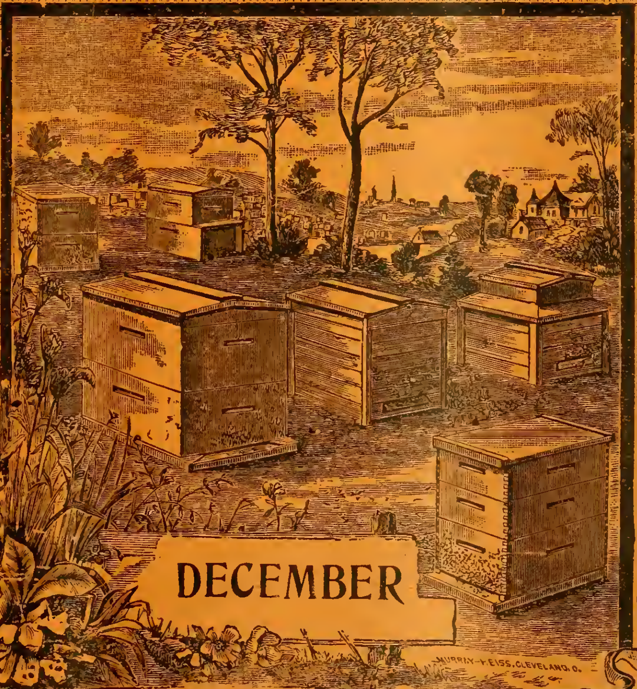
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NO. 12

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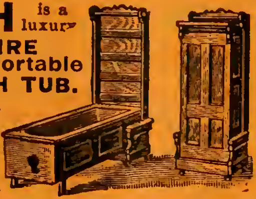

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alities one could hope for. Every e, however, who tried them found m spiteful stingers, and in all else ite worthless. So if this gentleman w condemns Punics, his judgment not to be relied upon from his hav- on former important occasions oken without his book.

have been keeping Punic bees now six years, with increasing confince in their splendid all-round quals. I should be accused of exagation if I were to let myself go out those bees. I will, however, deavor to let them speak for themves. I have had just over 200 of . Hewitt's queens. Each stock aded by a Punic queen I find deops a working power equal to three ive or Italian stocks and upwards. have 50 stocks now, and I would t exchange these for 150 native cks. I keep my bees in a plantan of firs, three miles from town.

Mr. Benton states that Punics are teful. How many bee-keepers uld dare to keep four great stocks bees on twenty-four standard frames h, four yards away from their chen door? That is what I did h four of my Punic stocks this nmer. The fences around my little rden are only five feet high; but ne of my neighbors ever complain- of the proximity of the bees. I for hours myself watching these ole-hearted little workers tearing and out, oblivious of all else but ir own needs.

For further proof let me relate that old four Punic stocks to three difent people in the same block. All se people placed their bees in their k gardens, and I have yet to hear any mishaps arising from their so ing. (Each of my above customers ve families of young children.) en again I went this summer to e the honey for an elderly gentlen to whom I had sold four of Mr. witt's queens the previous season, d here from the first stock I took enty-two solid slabs of honey beaully sealed in standard frames. om the other three stocks I took cessively twenty frames each, ally good. The honey was of nd quality—consistency, color and vor. From the same gentleman's ee stocks of native bees I took rectively 25 pounds, 20 pounds and 20 pounds again. (Having to extract from the bodies, as they had not ascended into the supers. We have had a bad season in England.) A neighbor of the above gentleman's, I was informed, took only 80 pounds of honey from six Italian stocks. In taking the honey from the four Punic stocks, I was not once assailed, the bees being most complacent after a few puffs of smoke in the mouth of the hive and between the combs.

I might observe here that I decline to believe Mr. Benton's statement about handling bees without a veil. It is beyond belief that any race of bees armed with stings will permit themselves to be robbed without attempting to retaliate, for one's breath is sure to invite attack even from half-stupefied bees.

The gentleman owing the bees aforementioned explained that he was never attacked from his Punic stocks, but that a footfall was sufficient to call forth numbers of vigilant skirmishers from his other hives. To show his appreciation of these bees he invited me to destroy his three native queens and bring him seven more Punic queens (cross-mated, at five shillings each). Kept shaded, well-ventilated, and not unjustly robbed, I can say without fear of successful contradiction that there is no bee which approaches the ideal nearer than my well loved Punics. I say this after twenty years' experience with other races. Going back to any other race after keeping Punics would be like reverting to the stage coach after the railway.

However, of all the false statements made by Mr. Benton, with regard to Punics, the falsest is that made with regard to their wintering qualities. I have wintered dozens of colonies of these bees in single-walled hives on unsealed stores, and have not lost a spoonful of bees per hive. I have never had a case of dysentery with them yet. We have had a succession of cold springs in England, and the extreme hardiness of Punics has prevented all appearance of spring dwindling.

Just to show briefly what can be done with these bees I will cite a particular instance of their powers of multiplication. In September, 1903, I mated a virgin queen I had from Mr.

Hewitt in a three-frame nucleus. By May, 1904, this stock covered twenty frames. By July it covered thirty frames. In August I took fifty pounds of honey from it, and made two strong nuclei with the empty combs. In these I mated two more of Mr. Hewitt's queens. These nuclei are now two ten-frame stocks. So that within a year from a three-frame nucleus I get fifty pounds of honey, a twenty-frame stock and two ten-frame stocks. Another three-frame nucleus in which I mated one of Mr. Hewitt's Punics I sold in May of this year, as a twenty-frame stock, for the sum of two guineas.

Some day the bee-keeping world will discover Punics and go wild over the discovery, for if there is anything that I am convinced firmly of, it is that Punics are the bee of the future, and Mr. Hewitt's system of queen-raising is the system of the future. Will someone find me the bee-keeper who on three days' notice will pack off thirty-six sprightly little virgin queens by one post, all arriving safely? When I get to know that man, I will share my worship of Mr. Hewitt with him.

From fifty stocks kept on Mr. Hewitt's lines, two swarms issued this summer.

Agincourt, Vicarage Road, Watford, England, Nov. 3, 1904.

CONVENTION ECHOES.

Something from the Western Illinois and the National Meetings.—A Sensible and Seasonable Letter.

By J. E. Johnson.

THE WESTERN Illinois Bee-Keepers' Association met September 20th, at Galesburg, Ills., and we had a very good meeting, well attended. Several bee-keepers from quite a distance were there, whom we had not met before. Many new members were added, and we had a very profitable, pleasant time together.

I will not try to give in detail what was said and done, except that several questions concerning the manipulation of bees were discussed, also plans of selling honey advantageously. The different members expressed their intention of attending our next meeting and of urging neighbor bee-keeper to attend. Now, while we had a gooc harmonious, profitable time, I want t tell the readers of The American Bee Keeper some of the things we did nc do. There are a few bee-keepers wit from 100 to 300 colonies of bees withi 30 to 40 miles of Galesburg who di not attend our meeting; nor do the attend any bee-keepers' association but we heard from them later, as shall relate. The bee-keepers aroun Williamsfield agreed to hold the comb honey at 14 cents. So we a getting 14 cents for our honey in ca lots. At Galesburg the merchants we offering 12½ cts., but the bee-keepe were holding for 15 cents per poun and some were getting their pric when along came those fellows wl did not attend our meeting and le 700 to 800 pounds in several of tl stores at 10 cents per pound—go comb honey at that. Well, that ju "knocked the stuffing" out of that ma ket for the time being, but the me chants know that honey is not nea ly so plentiful as last year, and a keeping the retail price up, and t wholesale price will soon recover.

I made it a point to visit one these bee-keepers, and found that though he had 160 colonies of be he took only one bee paper and not read that very thoroughly, and ways sold his honey for 10 cents pound, whether he had a good or poor crop. His crop last year w 12,000 pounds. This year, only abc 3,000, but it was the same price. did not know that we met in Gal burg nor anything about our assoc tion. I had a pleasant chat with h and invited him to attend our ne meeting. He seemed very interest and agreed to attend our next me ing. I also find that another pre extensive bee-keeper, about 40 mi away, sells his honey at home for fair price, but sells at towns furt from home for 10 cents, seeming n to realize nor care what the effect w to other bee-keepers. At first thought that surely the fool kill had failed to call on these bee-keepe or if he had called he had failed to his duty; but upon further investig tion we found that when they vi the larger towns the merchants p up such a great talk about honey b ing so plentiful and a drug on t arket that they accept the low price f 10 cents, not knowing that if they ad been members of our association nd attended the meetings they would ave been enabled to get not less than 2½ cents and very probably 15 cents or every pound of surplus they had. o while these fellows gave our cenral market a black eye for a while, e shall guard against any future ocurrence of this kind. We shall eneavor to help them and get them to elp us. I feel very sure if bee-keeprs would join together in local organizations, much good will result n many ways.

Our next meeting will be held in he county courthouse at Galesburg, lls., the first Wednesday in April, 1905, nd we extend a hearty invitation to ll bee-keepers within reach of alesburg to attend. The Western llinois Association has come to stay, nd while we don't display great oraorical eloquence or quibble over paramentary rules, we talk as much bee lk in one day as any bee-keepers' asociation in America. If you don't beeve it, just come and find out for ourself.

I had the very great pleasure of atending the meeting of the National ee-Keepers' Association at St. Louis, t which were gathered together any noted bee-keepers from differnt parts of the United States and ome foreign countries, but owing to mited time and a desire to see as uch of the great world's fair as posible, I only attended three sessions. did not hear any talk of manipulatng bees, but listened to some very ble papers read by Prof. Benton, ouis Scholl and others. Quite a lot f business was transacted, or rather laced in the hands of appointed comittees. Only a few took part in the iscussions, in fact, one influential ember gave a very polite invitation o members not sufficiently qualified o keep silent, as only those who ould talk interestingly should conume such valuable time. As for myelf I said nothing, nor had I any dere to speak; but I think many very telligent members were thus preented from taking active part. I on't believe the best conventions are those where only a few take active part. The president should judge when a member is out of order. At the Chicago-Northwestern convention, all members are not only permitted but asked to take part, and better conventions were never held than those at Chicago. President Harris is an able man and quick and fair in his decisions.

A committee was appointed to wait on some of the leading daily papers of St. Louis, so as to get a good report of the convention, but with the deplorable result of finding the next day's paper stating that the delegates were about evenly divided on the possibility of comb honey being manufactured. When we take into consideration that that report was perhaps read by thousands of residents of St. Louis and many other cities and villages of Missouri and other adjoining states, besides very many world's fair visitors from all parts of the world, we can only decide that it did a vast amount of injury; and coming from a selected committee of the largest bee-keepers' organization in America its weight is all the greater, and teaches us that it is largely through the carelessness of the bee-keepers themselves that stories are started which are so injurious to the honey industry.

I have had some experience in interviewing reporters and editors, as well as writing for the daily press. I give below a few rules which I have found valuable:

Don't try to interview the editor of a large daily paper. Ask for a reporter. The editor is a wonderfully busy man, and has his own work to look after, and will soon forget every word you have said.

When you go to interview a reporter, go prepared. Don't try to weave a report, but just give the main points in a few plain words. The reporter will do the weaving to suit himself, whether you say so or not; but if given all the main points plainly his article will be accurate. Both he and the editor are as anxious for an accurate report as you are, but if they do get it wrong nine times out of ten they won't take it back.

Williamsfield, Ills., Nov. 7, 1904.

FOUL BROOD.

By John Hewitt.

I NOTICE AN ARTICLE on this subject by Mr. C. H. W. Weber on page 24. Some day I hope to make public the result of all my work, but in the meantime allow me to correct Mr. Weber in several particulars and put him on the right track for research.

In the first place he says the bacillus of foul brood was discovered by Cheshire and Cheyne and named by them "Bacillus Alvei." This is not correct and is the fruit of an error started in the British Bee Journal Cheshire discovered it himself and named it B. Alvei eighteen months before Cheyne took up the work of verifying Cheshire's discoveries. Cheyne discovered nothing. Cheshire thought he had discovered a cure for it in phenol. I soon found he was mistaken in supposing so. I then made several experiments based on observations and sent several subjects to Cheshire to examine. Cheshire thought I had a new bacillus disease, and he made drawings of it, showing the difference between it and the true Alvei. As a matter of fact, it was the real thing and he failed to recognize it. From my experiments, I arrived at the conclusion that the disease did not reproduce itself until it had passed through the nurse bees, and from this I was able to devise a cure, which I published in the Bee-Keepers' Record for July, 1887, pp. 130 and 131. This cure has since been put out in America as the discovery of McEvoy, the Canadian foul brood expert, though he never mentioned it before I gave him a "slating" in the "Bee Master" ten years after. This cure is the only one that will ever cure foul brood, except heat, and I don't care what anyone may say to the contrary.

The latest is a statement that Dr. Lambotte, of Leige, has discovered the bacillus of foul brood to be the same as the bacillus of the potato disease. I read a translation of his article and came to the conclusion he had not been experimenting with true foul brood, but with a phase of bee life many people think is foul brood. Even Cheshire did. Lambotte got his samples from bee-keepers (he was no a bee-keeper himself) and he describes the diseased larvae as bein "yellow." Now the true foul broo is brown — not yellow in color. Bu this yellow foul brood is fearfully lik the true thing. Some years, with damp cold spell, almost every hiv will be affected; then no trace will b found for years, until another dam cold spell. I get lots of samples sen me from people who are sure the have got foul brood, and experts ar sure it is the real thing; but I am a ways able to tell them it will pas away.

"This "yellow" form seems to a very much like the potato diseas which I am satisfied is not "infe tious," as we understand the wor for some years it is not seen, whi in cold, damp seasons it is very com mon. I have planted diseased se time after time and lifted crops witl out a trace of disease.

The whole subject of infection badly misunderstood. It is only r cently that instruments were ma powerful enough to see the bacillu Just fancy someone had made a m croscope which, by magnifying 6,0 times, he was able to see strawbe ries grow, each sending out shoots, a these in turn sending out fresh shoo Now, just imagine the possibility such a man being able to see the be ries with the fine seeds dotted on th face, each one capable of growing a new plant. Just fancy he was ab to kill the plant with some kind gas or other nostrum, how would kill the seeds? My contention is, do not know the life history of the bacillus germs, and he is a fool w thinks he does.

Let us take ferns as an example what I mean. On the under side o leaf very fine particles of dust will found, called "spores;" so fine are th they are blowing about in the air breathe, thousands of them. Set damp tree pot out of doors, and th sands will stick to it. You cann scrape a handful of earth up witho getting thousands, every one which will grow if you give them t right conditions, viz.: moistu warmth and little light. Ferns ca not grow in sunlight. My idea that all disease germs are like fe spores—they will not germinate ept under favorable conditions. I now both the yellow and brown form f foul brood follows this rule, as the ellow" form is only seen after a mp, cold spell.

THOSE QUEEN CELLS.

I enjoy reading "Hardscrabble's" uaint letters, but he evidently has ot grasped my system. See his letr on page. 36. If he will read my arcle carefully, he will see that I don't ar queens from larvae two days old d call it "rearing from the egg." By sing larvae two days old, I get the es to make cells and half fill them ith royal food. Doolittle fills in the od; I get the bees to do it, whose me is not of such value as mine. I n't know whether Doolittle values s time above that of the bees or ot. These first larvae are picked t of the royal food—a very easy atter—and are just hatched from the g, put in, and it is these which are ared into queens. If anyone else s ever published such a system I ve yet to learn of it. It is a very sy matter to transfer larvae two days d into dry cells, and very easy to ck them out the next day, and if e has very good eyesight and prop tools, he can easily transfer larvae st hatched from the egg into this yal food, which the bees never reove; thus every larvae I transfer is ared into a queen. Who else can y this?

Brunswick Works, Sheffield, Engnd, Feb. 7, 1904.

SWARMING OBSERVATIONS.

otes and Comments on French Experiments.

By Adrian Getaz.

N A PREVIOUS communication I mentioned a report on swarming made before one of the French cieties of Apiculture. The report continued in the last number of iculteur. I extract the following m the answers given to the quesns propounded by the Society:

10. As nearly 99 per cent. of the es in France are yet black bees, the fference between the different races can hardly be of any importance. But in the same race, some colonies or strains are endowed with more vitality or procreative powers.

In twenty years, 42 per cent. of the original colonies of an apiary disappeared, themselves and their swarms or descendants; 18 per cent. remain either themselves or are represented by one of their descendants; 16 per cent. are represented by two colonies each. Another 16 per cent. are represented each by three to ten colonies. The remaining 8 per cent. may each have all the way from 20 to 30 or more descendants present.

A table following the above shows in detail that, as a general rule, the colonies swarming either quite early or quite late are more apt to disappear (either themselves or their descendants) than those which swarm in the middle of the swarming season.

11. Of 301 primary swarms observed, 43 per cent. came from colonies which had swarmed the year before, and therefore had queens one year old. 20 per cent had queens two years old. 15 per cent. had queens three years old, or, rather, came from colonies having swarmed three years before, and the rest, 22 per cent., from colonies having swarmed all the way from four to twelve years before.

The report concludes by saying that since the queens one year old are the most apt to swarm (43 per cent. of the total number of swarms), the requeening to prevent swarming should be done every year at the opening of the honey flow. Furthermore in so doing, there is less brood to raise and feed during the flow and a less number of "useless consumers" after the flow.

12. The report gives as a known fact that during the flow, no colony will swarm unless drones are present. But it is very seldom that a colony is without drones, nothwithstanding all that the apiarist may do to prevent their production, or to destroy them.

If there are drones, it matters but very little if they are few or many. Fifty-four per cent. of the swarms observed came from colonies having numerous drones, and 46 per cent. from those having but few. The report will be continued later.—L' Apiculteur.

In regard to the above I wish to say that I dissent in toto from one of the conclusions arrived at. It may be stated first that though it is not said so, the observations are in regard to modern hives, and consequently the colonies were worked for extracted honey. In Europe the difference in price between extracted honey and comb honey is very very little, and therefore all the users of modern hives work for extracted honey. Those using skeps or box hives, work for comb honey, very rarely putting a super of sections on the box, but usually a mere additional box from which the combs are cut out and sold as "chunk honey." Often the "chunks" are melted and the wax and honey sold separately. But that is not the point I want to make.

I think the assertion that queens one year old are more likely to swarm (43 per cent.) than the other is not correct. It is not the actual number of swarms, but the proportion of swarms to the number of such queens present in the apiary that indicates the propensity of swarming. To make it clear, let us suppose an apiary of fifty colonies, forty of which swarm this year and ten don't. Next year, suppose that ten of the queens one year old swarm, and only five of the others. Should we be right in saying that the one-year-old queens are more apt to swarm than the others?

Not at all. Out of the forty queens one year old, ten swarmed. That is only 25 per cent. Out of the ten others, five swarmed; that is fifty per cent., or twice as much in proportion.

My own experience is that comparatively few of the one-year-old queens swarm, and on the other hand nearly all the three-year-old ones do, if the season is favorable. If the season is not favorable for swarming, they are very often superseded.

As to the drones, I don't think they have anything to do with the swarming as such. Indirectly their presence may increase the extreme heat and lack of sufficient ventilation, and therefore add to the uneasiness which eventually leads to swarming, but that
is all. And in most cases, a less nu
ber of drones would have meant
much larger number of worke
raised in their place, and therefore
still more crowded situation and mo
chances yet of a swarm issuing.

The excess of drones is often due
the age of the queen. The older
queen is, the more drone eggs s
lays. The older she is, the more l
ble to swarm. So the two things a
merely coincident. One does n
cause the other.

Knoxville, Tenn., Nov. 1, 1904.

SHALLOW FRAMES BEST.

Considered from the Standpoint o Comb Honey Producer.

By L. E. Kerr, M. D.

AS I HAVE made the hive pr
lem a special study since I fi
began keeping bees, the cla
ing antagonisms that have taken pl
in these columns, between the ad
cates of the deep versus the shall
frame, have been to me intensely
teresting.

The evidence set forth by Mr. M
Neal in his article on page 179, wh
he makes out a strong case in fa
of a frame 11 inches deep, is pla
ble enough to the unobserving. Clo
investigation, however, shows his
guments to be weak and, in fact, w
out a leg to stand upon.

It is true that without the su
barrel shallow hives and all hives
signed to throw the bulk of the ho
crop into the sections would give
to one which kept the bulk of the c
in the brood-chamber. All intellig
bee-men now rely to a great ext
upon the sugar barrel. Not one, h
ever, ever have any of this, fed a
is in the autumn, get into the sectio
With the divisible brood-cham
hive and system, at least, this is
solutely impossible. The lower st
is, at the time the surplus recepta
are on, devoid of any stores whate
the brood-nest is so contracted.

The desire to secure a large cro
what Mr. McNeal pleases to te
avarice. Maybe; but I esteem such
an admirable quality and the first
sential to success in the art of ho
production. The departure from

neral principles embodied in the old
ep hive, in the construction of the
isible, is to overcome the instinct
the bees to store their honey in the
ood-chamber, where it profits the
e-keeper nothing and to facilitate
e harvesting of the crop in an at-
ctive form. With the foregoing
ts before us, we can very readily
e that a deep frame cannot give
rly the amount of section honey
t a shallow one will, and the causes
e unavoidable. The natural instincts
the bees ought to be followed as
sely as possible, where they do not
nflict with the interests of the api-
st; when this happens they should
restricted as much as may be prof-
ble to their owner.

As a cold-weather frame, I fully
ree that one 11 inches deep will
nter splendidly; but as a warm-
ather frame it would be impractical
producing comb honey. I do not,
wever, accept for an instant the
ory that deep frames are better for
nter than two sets of shallow
mes, or that there are, with divisi-
e brood-chambers, cold drafts pass-
g directly through the center of the
ood-nest. When two sections com-
ise the brood-chamber, a strong
lony will cluster between the two
ses until to all intents and purposes,
space exists. In the spring when
e colony is weaker, the brood-nest
above this space. We observe, then,
at this space cannot effect the heat
nerated by the cluster.

The cause of failure with the divis-
e brood-chamber hive generally
mes from applying the system of
nagement originally intended for
e non-sectional, which can have no
her result.

I wish to call the reader's attention
the fact, however, that Mr. Mc-
al is raising extracted, while I am
producer of comb honey only. A
me 11 inches deep may do first-rate
r extracted honey. I cannot say, as
ave had no experience, having nev-
produced a pound, for the market,
my life.

Rose Lawn Apiary, Germania, Ark.,
t. 7, 1904.

A BIG BEE TREE (?)

I want to tell you what I did with a
arm of bees that had whipped out several bee men that say they are not afraid of bees, and that they can do anything with them; same time this one drove them out, says A. F. Eilenberger, of Tonowanda, N. Y., in the Modern Farmer and Busy Bee. Mr. Peter Brady, a big lumberman who lives in the city of Buffalo, has a swarm that took his house for a hive six years ago this summer. He has a large brick residence, and on the peak of the south end they were in between the plaster and roof boards; also in the cornice. It was bees and honey in every place they could get in. I told Mr. Brady that I would get them out, as he wanted to reshingle his house, and could not. It took me about four hours with four men to kill them and get out the honey. As near as I could estimate it there were between nine and ten hundred pounds. The most of it was clover honey, and there must have been two bushels of bees, anyway. I did not get stung once. They filled my clothes and gloves full of stings. This is what I call a big colony of bees, and it took nerve to handle them. Working on the peak of a house is not like the ground. You just have to take it as it comes.

MORE THAN 100,000 BEES WERE KILLEL.

Over 100,000 honey bees were killed during the fire at the Eureka Paper Mills at Bridgeport, Pa., the other day. As soon as the smoke had rolled away and the charred remnants of their homes had cooled the little insects, human-like, set to work cleaning up.

Apparently, an ambulance corps was formed, numbering several hundred bees. These began getting out of the way their dead comrades, many of them killed by stung firemen, and the way they worked suggested the work that must be going on daily on the Russo-Jap battlefields. Each bee tackled a dead one and struggled away with it, and as the field was strewn with thousands they have been employed the past few days.—Philadelphia Telegraph.

When writing to advertisers mention The American Bee-Keeper.

SUCCESS AND FAILURE.

By A. J. Halter.

DID YOU ever stop to think how many bees are kept at a loss, either through neglect or ignorance, by individuals who proclaim themselves to be bee-keepers? Suppose you for yourself take a little survey in your immediate vicinity, enumerate the colonies of bees and their owners; what per cent. are operated successfully? How many progressive bee-keepers will you find?

If figures were in print it certainly would be astonishing to realize that such conditions would be possible after all has been said in our books and journals.

But there is a class of people who are always at a standstill, waiting for prosperity to come their way, without making any preparation for its reception; others who are too busy—"can't spare the time and money."

It may seem somewhat amusing to approach a man with a number of colonies in old boxes, kegs and th like, to hear him speak of his bee industry, perhaps placing a value far beyond the ordinary. When you as what he has realized from the sales o honey, he expects to get in the hone business next season.

There are some who make a partia sucess at almost anything they undertake. When I began bee-keepin I had the pleasure to entertain a gentleman who said he kept bees upward of ten years, mentioning that he ha a large supply of fixtures store away which he did not see fit to us as there was no money in the busness, as every pound he had secure cost him a dollar.

AMERICAN BEE-KEEPER.

Mr. A. J. Halter, and Apiary.

Hives and fixtures are a necessit for the production of honey, but mu be applied with skill and in harmon with the work of the bees. In th class the successful bee-keeper can b found, seeking information at a times which may lighten his burden.

Akron, Ohio, Oct. 14, 1904.

BEE AS A SIGN PAINTER.

ork Directed So As to Form Letters of the Honey-comb.

Occasionally there is to be seen at gricultural fairs and similar instituons honeycomb worked into the ape of inscriptions or other designs. ccording to a French journal deoted to natural science, the letters at form these inscriptions are really ade entirely by the bees, and are lled with honey by them only. But ey are not proof either of art or of telligence, for the bees blindly fowed the will of their master, to hom the entire credit is due. He nderstood how to choose the moent when they felt the imperative eed of building cells to hold their recious product, and to oblige them y an adroit trick to give to their contructions the shape that he wished to mpose. It is by the use of molded ax that this is done; but what is olded wax? It is wax in thin sheets n which are stamped impressions aving the shape of the bottoms of oneycombed cells (generally known s "comb-foundation" or simply foundation"). This wax has done uch for the progress of modern apiulture. It was invented in 1857 after any trials by Jean Mehring, a Baarian bee-keeper. * * * Since ne of its greatest advantages is that t obliges the bee to build cells acording to the indications that it gives, t may be used to make straight and arallel combs that can easily be withdrawn from the hive and that may be emptied of their honey by a centrifugal machine. A pure and limpid honey is thus obtained with surprising rapidity and without breaking the combs, which are replaced in the hives to be filled anew by the bees. It is sufficient, then, to suspend these sheets of wax in a hive to cause the bees to utilize them as a foundation for the lateral cell-walls. They must, however, be made of absolutely pure wax; if not, they are torn to pieces by the bees and thrown out of the hive. This custom of bees, of following the bee-keeper's indications, is utilized to make them build their combs in all sorts of odd shapes. It is necessary only to fix strips of molded wax perpendicularly on a plank, fastening them with strong glue or melted wax. They are then surrounded with a sort of mold, which leaves just space enough for the bee to build its cells and move about. The most convenient size to give to this space is indicated by the usual space left between the combs in a bee-hive. The whole is placed in a hive upside down —that is, with the plank on top; and the bees go to work on it without delay. Fig. A shows the plank with its strips of comb foundation. In B we see the guide and at C the whole mold at the end of the bees' work.—Newspaper.

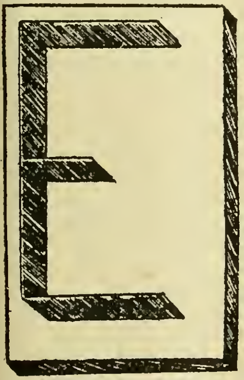
FIG. A.

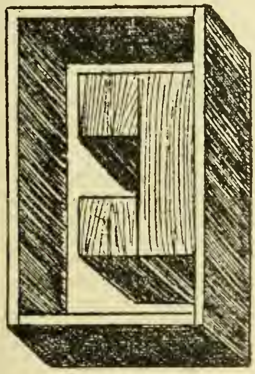
FIG. B.

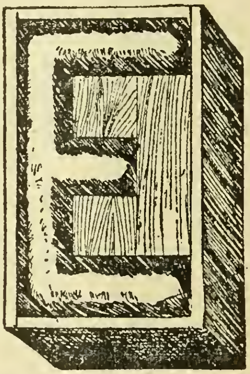
FIG. C.

One dollar will pay for The Bee-Keeper from this date until December, 1907.

THE Bee-Keeping World

Staff Contributors: **F. GREINER and ADRIAN GETAZ.**

Contributions to this Department are solicited from all quarters of the earth.

GERMANY.

"Extracted Honey, finest quality, at 60 Marks per pound." Thus advertised a certain storekeeper in Bonn, says the Leipz. Btzg. The price of honey in Germany is much higher than 60 marks, and it was evident that this honey sold by the storekeeper would have to be adulterated. A complaint made resulted in a prosecution of the man, who was found guilty of selling adulterated honey, although it was shown that he informed each purchaser that the article was not pure honey.

Aaman reports of having lost a colony of bees by starvation, although the same had a supply of thirty pounds at the beginning of the winter. There was not a cell of honey left, and the possibility of other bees having robbed the colony is excluded.

The Hann. Cour. asserts that there are wasps and mosquitoes in New York, but no bees. (Even should the reporter mean the city, he might find himself mistaken, should he come over and make an investigation.)

The Luxemb. Bztg. gives the following good advice on renewing queens: Insert a ripe or matured queen cell caged. Keep young queen caged for seven days. Then remove old queen and release the young.

As something unusual it is reported from the heath (Lunenburg) that single hives have gained as high as four pounds per day.

The heath produces very little pollen and the older bee-keepers of these localities make the claim that colonies, left in the heath for two years, become foul broody on account of th lack of pollen.—Schweitz. Bztg.

The honey gathered in Germany th past season is considerably darker i color than usual.

The safety of obtaining pure an unadulterated honey lies in the honesty of the producing bee-keeper o whom the consumer buys his supply —Dickel in Ill. Bztg.

The bee-keeper, Sperling, of Goed sold 900 pounds of comb honey, sai to be pure "bee honey," to a deale in Dresden. The honey proved t be partly sugar-fed honey. Th authorities took the matter in han and S. was heavily fined.—Ill. Bztg.

The Centralverein has sent in a petition asking that apiculture be taugh at teachers' seminaries.

TUNIS.

The bee-keeper in Tunis finds i necessary to use double-walled hive on account of the prevailing coo weather during the honey flow. Th harvest for the bees and the bee keeper is during the late fall an early spring. P. Neuman translate from the Bulletin de la Societe Romand d'Apiculture that the bee-keepers are imprudent enough to kee as many as 1,000 colonies in on place.

JAPAN.

The native honey-bee of Japan i grayish-yellow of color. It is perhaps the most docile bee known an may be handled without any protection on the part of the keeper. It i also claimed that these bees are mor industrious than other races, goin out in search of food during rain eather. The Japs have adopted he most rational methods of hanling bees, and to keep them at a rofit. Australian bee-keepers have ntroduced the Japan bee into their ards and succeed remarkably in the ultivation of the same.—Neumann in entral-Blatt.

SERVIA.

It is stated in the Ill. Bztg. by S. awrilowitsch that in Servia along the hores of the Danube fried fish and oiled chicken, all of which are cheapr than sugar, are used as substitutes or bee food; this wonderful news S. G. obtained from a Servian bee joural. (What next?)

AUSTRIA.

Jungklaus reports in "Imker of Bohemia" that at an exhibition of oney in Itzehoe, judges entirely igored "liquid" dark honey, giving the olid honey the preference.

On the 18th of June all business in ne of the main streets of Budapest was brought to a standstill by a warm of bees. Said bees were not nclined to yield to the orders and ctions of the police force, which ame out sometimes worse for year. As a result, long strings of wagons and people accumulated at ide streets. As a last remedy water rom a hydrant was made to play on he bees, which took leave at once, nd business was resumed.

Jungklaus also tells how a young woman captured a swarm of bees. Being on a tramp, she found a swarm f bees hanging on a bush. Wishing o secure it, she took off one of her kirts, tied up one end and, by the elp of sticks, spread it out in such way that she could hive the swarm nto it. After the bees had all moved in, she tied up the other end f the skirt and thus carried the warm several miles to her home.— "Well done.")

AUSTRALIA.

Bienen-Vater tells of a species of nts found in Central Australia which athers and stores honey. The storing, however, is not done in waxen cells, but in living reservoirs. A portion of the ants have a receptacle, globular in shape, about one centimeter in diameter; this is the store-room of honey from which the other ants draw, and they in turn feed these rather clumsy sisters. The uncivilized natives living in Central Australia consider these honey ants (Melophorus) morsels of delicacy.

AFRICA.

Apiculture among the Egyptians, as is well known, was a well-understood business as far back as 2,000 years ante Christum natum. Solon the Wise went from Greece 2,500 years ago to study bee-keeping in Egypt. Since these times apiculture has not made the advances that it did in some other parts of the world. The African bee is a black bee, closely related to the German brown bee, and the natives in different parts of Africa have their methods of handling these bees. Many of them manufacture their hives by a process of weaving grasses and the like into long cylindrical shaped habitations. Such are often placed way up into the tops of trees with a view of catching wild bees. The yields of honey are said to be very large and the quality of same equal to European honey.

FRANCE.

Wax Secretion Experiments.

Mention was made some time ago of experiments made by Mr. Sylviac and others to determine how much honey it takes to make a pound of wax. The process followed was to hive a swarm and weigh the combs built two or three days later; the supposition being that the honey brought from the parent hive was approximately equal to the amount necessary to produce that amount of wax, since there is no brood to raise and what few bees go to the field get about enough (probably) to keep the swarm alive.

Recently, in reference to artificial swarming, somebody asked how much wax a bee can secrete in a day, or how long it would take a swarm of known strength to build its combs.

In answer to this question, Mr. Sylviac quotes the following experiments, which were made at the time for the purposes above mentioned:

1. A small artificial swarm of 2,000 bees fed on sugar, built 66 grams of comb in three days. This was under unfavorable circumstances. Cool weather and too few bees. This would give 11 milligrams per bee and per day, if all were at work equally well. Deducting 200 bees too old or too young, or otherwise occupied, give 12 milligrams and a fraction instead of 11. (1 gram equals 1,000 milligrams; 1 American pound of 16 ounces equals a fraction over 452 grams).
2. A nucleus of 300 bees built 45 grams of comb in eight days under a temperature rather low.
3. A swarm of 20,000 bees usually builds about 1,000 grams of comb during the four first days. This was the usual average during the aforesaid experiments. Usually about one-tenth of the swarm consists of drones. Another proportion of bees are too young or too old to secrete an appreciable quantity of wax. Admitting 15,000 bees, we would have an average of nearly 17 milligrams per bee daily.
4. One swarm of 13,000 bees practically without drones gave 100 grams in a day.
5. One exceptional case is that of a swarm of 10,000 bees nearly without drones which built 900 grams of comb in three days. That would be 30 milligrams a day for each bee, if all had taken part, which is not likely to be the case. None of the other experiments came near to that.
6. Berlesh is quoted as having met an exceptional case where each bee must have produced 0.57 gram of wax per day. There must be an error somewhere. Possibly 0.057 are meant. Even then it would be excessive.—L'Apiculteur.

Bee-Sting Poison.

The question of the composition of bee venom is still going on. Wild bees have also been examined. Mr. Langer, P. Bert, Cloez and Phisalix are still at work. It seems now established that the "stinging" proper- of the venom are due not to the formic acid but to two different substances, probably secreted by two different glands. One of these produces effects similar to convulsions, the other effects rather similar to those of morphine. The general substance of the venom (beside the two poisons above mentioned) produces the swelling and the other local irritation.

It has also been stated that while a poison, the venom is useful not only against rheumatisms but also some other diseases. To apply it directly from living bees is objectionable though, as stated in a previous paper it has been done to a greater extent than generally supposed. The experiments made now have in view the preparation of a serum to be injected To get the venom the bees are firs chloroformed and the stingers pulled out, sac and all, one by one. They are then sold to the druggists, who extract the venom by pressure and chemical action. This has been done on a small scale for quite a numbe of years, and the preparation used by homeopathic doctors to a certain extent. There may be a source of revenue for the bee-keepers in course o time.—L'Apiculteur.

In a previous number of the Ap culteur a correspondent advised th bee-keepers who use the DeLayen hive to spread the combs so the quee could not use them for brood, excep of course, those reserved for that pu pose. It turns out that a number c bee-keepers are already doing tha very thing. The distance from cer ter to center varies between 42 an 50 millimeters, the majority of thos who reported using 43. (One Amer can foot equals 305 millimeters.) Se eral had tried perforated zinc, b found it unsatisfactory.

(The DeLayens hive is what w would call here a "Long-Ideal" cha hive. The walls and cover are do ble, with packing between the tw walls. It is a one-story hive, havin from 15 to as much as 20 combs. Th combs are very large; sometime square, sometimes much higher tha long. The entrance is placed some times at one of the large sides facin the end of the frames and sometime at one of the small sides; the frame being then what we would ca "across" the hive. A tight divisio board is used, reducing the hive t ix or eight combs for the winter. uring the flow, it is moved farther nd farther as new combs are added. -L'Apiculteur.

A German apiarist has patented an nvention consisting of making founation with very thin tin passed in a oller and coated with wax. The tin sed is as thin as paper (it takes 16 heets to make one millimeter). The vax coating is very light. The rollers sed to make it are of steel, ordinary nes being too soft to work tin. Steps re being take nto have the invention atented in the United States. — L' piculteur.

Reference has been made in these olumns to a method of leaving an pening or entrance between the rood nest and the surplus departnent. Such an entrance increases the urplus considerably. A corresponent writes that the process has also een used to some extent in Germany ith good results. In winter, only e lower one is left open. In sumer both, but the lower one is parially closed. If the hive has more han two stories, each has its own enrance open. (This must apply to the erlepsch hive, which is composed of everal stories tiered one upon anther. All these experiments with top ntrances are in reference to extractd honey. How it would work with omb honey is yet to be seen.)—L' piculteur.

BELGIUM.

The Bucher Belge has a department f "Monthly York in the Apiary." or September the following advice given:

See that every colony has a queen.

See that there is enough bees to over seven or eight frames, chiefly oung bees. (The European frames re all larger than ours).

See that each colony has from 30 to o pounds of honey.

Replace all queens three years old r more.

Further instruction are given conerning feeding, uniting weak colnies, etc.

Dark and inferior honey is to many piarists a serious drawback. It is ifficult to sell, and if sold, it is at a low figure. The worst part of it, its sales of good honey considerably. of the apiarist and damage his future sales of good honey considerably. Mr. E. Van Hay suggests the making of vinegar with it as a solution. Dark honey, even from honey due, will make vinegar as good as any apple vinegar ever made. As to strength, a little less than a pound of honey to a gallon of water will make it as strong as the best apple vinegar.—Le Bucher Belge.

Germania, Ark., Oct. 5, 1904.

Editor American Bee-Keeper:

Accept thanks for giving us "Dutch" article, page 216-217. I have just finished reading it.

In my opinion apicultural periodicals might do worse than to give a little closer attention to this funny side of the bee business.

With many thanks, I remain

Respectfully,

Dr. L. E. Kerr.

CONVENTION NOTICE.

The Pennsylvania State Bee-Keepers' Association will hold its fall convention in Harrisburg on Tuesday and Wednesday, December 6th and 7th, 1904. An excellent program has been arranged. Many subjects of vital interest will be ably presented. General Manager N. E. France, of the National Bee-Keepers' Association, will be present, as well as other prominent bee-keepers. Every bee-keeper in Pennsylvania should interest himself in this meeting.

D. L. Woods, Secretary.

Muncy, Pa.

STOLE A BEE HIVE.

Thief Took Not Only the Honey, but the Bees, Too.

At the home of James Miley, of Glenloch, Pa., a thief took long chances, says a West Chester, Pa., paper. Mr. Miley has a number of hives of bees, and during the night the thief stole swarm, hive, and honey, carried them half a mile, broke open the hive, and secured the bees and fifty pounds of honey.

Mr. Miley offers a reward for the detection of the thief.

THE AMERICAN BEE-KEEPER

PUBLISHED MONTHLY.
THE W. T. FALCONER MANFG. Co.
PROPRIETORS.
H. E. HILL, - EDITOR,
FORT PIERCE, FLA.

Terms.

Fifty cents a year in advance; 2 copies 85 cents; 3 copies $1.20; all to be sent to one postoffice.

Postage prepaid in the United States and Canada; 10 cents extra to all countries in the postal union, and 20 cents extra to all other countries.

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Falconer, N. Y.

Articles for publication or letters exclu- for the editorial department may be addressed to
H. E. HILL,
Fort Pierce, Fla.

Subscribers receiving their paper in blue wrapper will know that their subscription expires with this number. We hope that you will not delay favoring us with a renewal.

A red wrapper on your paper indicates that you owe for your subscription. Please give the matter your earliest attention.

Editorial

Relating to Mr. Poppleton's article in a recent number of The Bee-Keeper, Dr. Miller, in Gleanings makes this pertinent comment: "Might be rather severe to say so, but it looks as if the man who puts on the market some of the unripe stuff to be found there is not only dishonest but a fool as well to spoil his market without any compensating gain." And the Doctor spake wisely.

Following the campaign of education, projected by the National Bee-Keepers' Association, better days fo the honey producer are anticipated God speed the days.

The publishers and the editor o The Bee-Keeper unite in extending t each reader sincere wishes for a Merr Christmas and a Happy New Yea Nor do our well-wishes end with th festive season; they include the saf wintering of the bees and a bount ful harvest for the year to come.

J. A. Green advises Gleanings reac ers that, at least, one confectione makes use of dark comb honey in th manufacture of high-grade candie The wax, it appears, enters also int the composition of the confection, i order to give the "standing u quality, a la Dr. Walker, in Ladie Home Journal, with regard to tl paraffine caramel, etc.

Bee paralysis is a subject the i vestigation of which has already bee undertaken by the National Depar ment of Agriculture, at Washingto Special Agent in Apiculture John M Rankin is in pursuit of informatic relative to this particular malady, a bee-keepers in infested districts w pray that his efforts may bear frui Though less virulent, paralysis more mysterious than foul brood.

It apears that many who write f publication absolutely decline to hee the oft-repeated request that such le ters be written on but one side of t paper. We have a quantity material, some of which contains go ideas, on hand awaiting an opportu ty to rewrite it so that it may l used. If we get the time to do so, w shall make use of it; if not, it cann be published. It seems strange th writers should be so heedless of t simple requirement.

Slanderous and insulting remar directed at one's opponent in discu sion tend rather to detract from, th to enhance the force of argument. our object is to influence thinki minds, our argument should be clot ed in courteous and respect language. To wound the feelings an opponent is no victory for tl uthor of the insult. Language may be at once, forceful and respectful. Some of our correspondents might profit by this suggestion.

Some bee-keepers manage to get along without the expense of a bee paper. It may be economy to do so, but a reading of Mr. Johnson's article, "Convention Echoes," in this number, eads one to surmise that it is False Economy, and not the kind that aids success. The loss of two cents per pound on 12,000 pounds of honey, as result of the producer not having kept himself informed, represents an amount sufficient to pay for every bee journal published in the United States for a period of forty-eight years.

A particularly noteworthy paragraph in the article of Mr. Spanswich, n this number, is that in which he declines to believe that Mr. Benton handles bees without a veil. Our esteemed British correspondent might be surprised to learn that, perhaps, the majority of American specialists do not use a veil or other protection over the face at all. The writer has manipulated several thousand colonies during the past twelve years, and during that period has never used a veil—wouldn't be bothered with such a thing under any ordinary circumstances. Cyprians are the only race or strain of bees the handling of which seemed to demand face protection. With them a cast-iron coat of mail is hardly adequate to the demands.

"Increase" is the title of a handsome brochure recently received at this office. It is printed and published by the author, Mr. E. L. Pratt, of "Swarthmore" fame, and it is exactly n line with the "Swarthmore" style of doing things—"done up brown." The Swarthmore outfit has achieved more than national prominence of late. Several awards of the highest order have been won in European competitions by Mr. Pratt's noted strain of bees, while his ingenious queen-rearing devices are obviously in the lead almost the world over. The little book is executed in a highly artistic style, with several beautiful photographic reproductions of a tone which harmonizes beautifully with the stock upon which they are printed, and nuggets of wisdom, philosophy and good advice freely abound. Swarthmore's enterprise is the kind that wins—it's the kind that has faith for its backing and the modern business tact and pluck to proclaim that faith to the world.

HANDLING BEESWAX.

The Australasian Bee-Keeper recently offered a prize for the best article on "How I Would Deal with Cappings to Produce Clear Yellow Wax." The various replies offered in competition are quite interesting.

Several competitors advocate straining the wax through thin cloth material as a means of removing specks of dirt, etc. The articles appear to be written by experienced apiarists, and this journal is therefore led to wonder if any of our American experts practice this straining process. In our experience, or rather observation, the straining of beeswax has been confined to some kitchen, and the operator has invariably been an operatoress (?). However, we think the plan a useless one, as well as wasteful. If a body of melted wax is kept at a high temperature without being in any way agitated, all particles of foreign matter that could be strained out, may be skimmed from the upper surface before cooling, or removed from the bottom of the cake after.

Following are some of the noteworthy ideas of our Australian brethren: "Light-colored honey makes light-colored wax, and the darker the honey the deeper yellow is the wax obtained. Yet I have never seen light-colored wax obtained from brood combs. . . . A slight variation in the color of different swarms of bees of the same breed may be observed when they consume the same kind of food in making it, just as the butter varies slightly when made from the milk of cows of the same breed and fed alike."

Somewhat upon the same line, another writer observes: "You may deal with cappings in the most up-to-date, scientific methods and still fail to produce a clear yellow wax, because it is only where the honey is procured from certain plants and trees that it is possible to have a clear yellow wax." He then proceeds to name a list of nectar-yielding plants and trees during a flow from which the wax secreted will be from bright yellow to a bronze or dirty yellow color. He further suggests that all waste wax may be brought to a uniform color by mixing two-thirds of the "worst" with one-eighth of the "best."

QUEEN BREEDING IN FLORIDA.

The Florida Agriculturist, one of the best agricultural journals in the South, by the way, reproduces from our last issue Mr. Reeves' article in regard to the obstacles with which queen rearing is attended in parts of Florida, and asks its readers whether they have had a similar experience, saying, "In this section (DeLand) bees do very well." The Agriculturist says it seems strange that The American Bee-Keeper should publish such an article without comment.

To those who have not practiced queen rearing in Florida it may seem strange that no "comment" was made. The reason, however, that comment was omitted, is because we beleve Mr. Pratt's conclusions were wise and that the teachings of the article in question are as true as gospel. This journal has repeatedly affirmed that queen rearing in Florida was attended with more drawbacks and obstacles than are likely to be met anywhere else in America. The writer has been to some extent engaged in queen rearing in northern states; in Cuba, California and Canada, and we believe queens may be reared thirty to fifty per cent cheaper in any of these places than in Florida.

In certain localities the ants and dragon flies are so bad as to practically preclude the possibility of successful queen rearing upon a commercial scale.

Florida has many advantages to offer, in divers ways. Some sections afford excellent opportunities for successful honey production; but the fact that "bees do well" in some sections does not necessarily imply that the conditions essential for successful queen rearing obtain to a satisfactory degree.

PUNIC, OR TUNISIAN BEES.

The discussion in regard to the merits of Tunisian bees now going on in these columns promises to develop interesting information. Since the appearance of Mr. Benton's article ir our October number we have received numerous comments, aggregating nearly one hundred pages of manuscript together with lots of letters fron those who have tested this race o bees. It is sincerely regretted tha much of this matter, owing to it somewhat vindictive tone, is necessarily excluded from the columns o The Bee-Keeper. It is apparent, however, that there are two sides to th matter, and when our correspondent can bring themselves to exclude personal spite and disrespectful languag from their writings, both sides ma be heard.

In view of the limited space afforded by a journal of the size of Th Bee-Keeper, it should be borne i mind by contributors that it is absc lutely impossible for us to use art cles of great length in these co umns. It is our wish to assist in th development of truth that will ai the cause of apiculture, but it is ir portant that arguments should cor form to the limit of our facilities.

To insure publication without ur due delay, the correspondent shoul be as brief as possible and always respectful towards his opponent.

WHERE ARE THE STRAW "SKEPS?"

It will be noted that elsewhere in th number of The Bee-Keeper Dr. Big low asks "where in this country stra hives are in use?" The answer, ur doubtedly, is, nowhere. However, is not improbable that some isolat specimens may be in existence i America; and the editor of The Be Keeper has asked before if anyor knew where one might be obtaine and no response was received.

If any of our readers know whe any old-fashioned straw "skeps" ma be had we shall be pleased to hea from them. Let's hear from the Ge mans of our circle. They must hav inside information in regard to the relics of bygone days, and the writ would be proud to possess an ol straw hive.

Have you a neighbor who does nc take The Bee-Keeper?

ENCOURAGING REPORTS.

The following selections from our orrespondence should prove of in-rest to advertisers who desire to xpand their trade during the coming ear. The only way to develop a rofitable business, these days, is to o good advertising and back up ood advertising with good stock. here is certainly no advertising meium in the field which can give its atrons better value than The Amer-an Bee-Keeper. We have received undreds of favorable letters from our dvertisers, and the writer knows of ut one single complaint; and this ame from a twenty-five cent adversement, inserted once. It is stated y this patron that he received only venty cents as a result of this pubcity campaign.

It is hard to sell anything that the ublic don't want; but if any reader of he Bee-Keeper has a commodity to ffer which will appeal to bee-keeprs, he will find no medium through hich greater results may be secured n proportion to the investment, than he American Bee-Keeper; and contant advertising is the very backone of business success.

The Bee-Keeper, next month, will tart upon its fifteenth year, and in ddition to assisting bee-keepers to ne greatest possible extent through s columns of text and pictures, it ffers also to help them through its dvertising columns, at reasonable ates, to develop active business in ales.

The Bee-Keeper circulates in evry civilized country on earth:

Swarthmore, Pa., Nov. 5, 1904.

ditor Bee-Keeper:

I enjoy The Bee-Keeper, every numer, and read it from cover to cover -advertisements and all. There are everal features in your journal each f which are worth the subscription rice to any bee-keeper. I have had small advertisement in your Breedrs' Column and am constantly receivng inquiries and making sales as a esult. I bring to mind a direct sale f considerable size early this spring, hen the customer drew forth The merican Bee-Keeper from which he ad obtained my address. The geneman had lost all his bees that winter and had called to buy more, and am glad that we were able to fit him out with a new lot.

Fraternally yours,
"Swarthmore."

Hutchins, Pa., Oct. 20, 1904.

The W. T. Falconer Co.

Please find enclosed 75 cents to apply on my subscription account for The American Bee-Keeper, and continue to send it. It is worth its weight in gold. Yours truly,

Harry Jury.

Kansas City, Mo., Nov. 10, 1904.

Editor Bee-Keeper:

I appreciate your journal very much and often quote from it.

T. J. Tanner,
Editor Rural World.

Schenectady, N. Y., Oct. 1, 1904.

The W. T. Falconer Mfg. Co.,
Jamestown, N. Y.

Gentlemen:—I sent for a sample copy of The American Bee-Keeper, which was duly received. I notice under the heading, "Bees Our Theme," "This journal cuts out 'kindred topics,' 'home departments,' and all other side shows. We are running a bee journal solely and exclusively." Hence my subscription. You ought to print this motto in good big letters on the title page. For one, I do not care for politics, religion, baseball and bees all out of one paper.

Respectfully yours,
L. S. Chapman.

Bellevue, Ohio, Nov. 9, 1904.

Editor Bee-Keeper:

Our card in your Queen-Breeders' Directory has been very satisfactory to us, as we can trace several good-sized orders to inquiries coming from this source. Yours truly,

Quirin, the Queen-Breeder.

Spring Hill, Tenn., Nov. 8, 1904.

Editor Bee-Keeper:

My advertisement in your Queen-Breeders' Directory has been so satisfactory that I desire to continue it. Please also extend my subscription for five years from expiration of present term. Yours truly,

John M. Davis.

Cincinnati, Ohio, Nov. 8, 1904.
Editor Bee-Keeper:

We wish to say that our advertisement in your Queen-Breeders' Directory has done us a great deal of good, and we enclose change of copy for same, as we desire to continue it.

Fraternally yours,
The Fred W. Muth Company.

Morgan, Ky., Nov. 8, 1904.
Editor Bee-Keeper:

I think that my card in your Queen-Breeders' Directory has given very good results, and I want it continued through 1905, and also want The American Bee-Keeper for next year.

Very truly,
J. P. Moore.

Dresden, Germany, Oct. 4, 1904.
Editor American Bee-Keeper:

I am well pleased with the numbers of The Bee-Keeper received, and in addition to former remittance am sending today money order for back numbers for 1902 and 1903, and also cash to cover subscription for 1905.

Yours truly,
Wm. Hesse.

NATURE OF FOODS.

Paste this in your cook book, and you will never be at a loss to know what constitutes a well-balanced meal:

Tissue and muscle builders—Milk, eggs, lean meats, whole wheat, peas, beans, potatoes, cabbage and onions.

Fat, heat and energy producers—Cream, butter, starch, sugar, honey, fats of meat and vegetable oils.

Brain foods—Fruits, fish, eggs, game, cheese, oysters, lobsters and potatoes.

Blanched almonds and walnuts, tomatoes, juicy fruits, prunes and figs all contain brain food.—Nebraska Farmer.

The Youth's Companion in 1905.

It is impossible even to summarize in a single paragraph the many and varied attractions which The Youth's Companion announces for the coming year.

A series of articles planned to interest especially the forty-five millions of Americans who look directly to the so-- for their subsistence will treat of "New Fields for Young Farmers," "The Sanitation of the Farm," "The Future of American Cotton," "How to Make Money on the Farm," etc.

Seven serial stories and 250 short stories by the most talented and popular American writers of fiction will form part of the contents the new volume for 1905.

Full Illustrated Announcement describi the principal features of The Companion's ne volume for 1905 will be sent with sample copi of the paper to any address free.

The new subscriber who sends $1.75 now f a year's subscription to The Companion r ceives free all the issues of The Compani for the remaining weeks of 1904, also T Companion "Carnations" Calendar for 19 lithographed in twelve colors and gold.

THE YOUTH'S COMPANION,
144 Berkeley Street, Boston, Mas

HONEY AND BEESWAX MARKET.

Cincinnati, Ohio, Oct. 28.—There is a mar ed improvement in the demand for comb ho ey since our last quotations. No mater change in extracted honey market. We co tinue to quote white clover extracted, in b rels and cans, at 7 to 8½c. Amber, in ba rels, 5 to 6c. Fancy white clover com 14 to 15c. Beeswax, 28c.

The Fred W. Muth Co.
51 Walnut St.

Denver, Oct. 26.—Supply of honey is am to meet local demand. The demand is lig We quote our market today as follows: N 1 white, $2.50 per case (24 sections). No. $2.25 per case. Extracted, 6 3-4 to 7½c. Be wax, 22 to 25c.

Colorado Honey Producers' Association
1440 Market Street.

Boston, Oct. 24.—We are pleased to note increased demand for honey which, with comparatively light receipts, makes pri firm. We quote fancy white comb, 16 to 1 No. 1, 16c., with but little No. 2 on hand to be had. Extracted light amber, 7 to 8c.

Blake, Scott & Lee

Chicago, Nov. 7.—There is not demand s ficient to take the receipts; hence are ac mulating. Especially is this true of off grad Fancy white clover comb brings 14c.; oth No. 1 to fancy white, 12½c. to 13c. Off grad 1c. to 2c. less. Amber, 10c. to 12c. Extrac white, 6½ to 7c. Amber, 6c. to 7c. All the foregoing is governed by quality, fla and kind of package. Beeswax, 28c. to 3 per pound.

R. A. Burnett & Co
199 South Water Street.

La Compania
Manufacturera Americana

ofrece los más reducidos precios en t da clase de artículos para Apicultor Nuestra Fábrica es una de las m grandes y más antiguas de Améric Especialidad en Colmenas, Ahumador para Colmenas, Extractores, etc. I ventores y perfeccionadores de much artículos de suma utilidad en la Apic tura. Enviamos gratis nuestro catálo y precios á quienes lo soliciten. Dirí nse á

THE AMERICAN MFG. CO.,
Jamestown, N. Y., E. U. A.

INDEX TO VOLUME XIV, A. D. 1904.

SUBJECTS.

n Amateur's Question, ... 21
piarian Patents, Recent, ... 22
Great Sufferer, ... 59
n April Morning, ... 67
re You Mad? 105
dvertising Honey, ...127
dvice for the Novice, ... 140
Picture Wanted, ... 153
nts and Bees, ... 168
nother Bee-Keepers' Society, ... 172
Popular Fallacy, ... 197
utumn Honey Plants, ... 198
ncient Bee Lore, ... 199
n Open Air Colony, ... 207
dvance of Apiculture, The, ... 214
New National Organization, ... 234
dvantage of Strong Colonies, ... 75
rtificial Pollen, ... 10
nticipated Swarming, ... 113, 151
Big Bee Tree, ... 249
eeswax, ... 4
ees in the Green House .. ..
ee Stings for Rheumatism, ... 231
ee Humbug, ... 5
rood Frames, ... 18
eedom at Home and Abroad, ... 20
ees and Ants, ... 28
ee Notes. 44
ack Bees, ... 54
ee Paralysis—What's the Cause? 63, 104
ee Space Over Frames, ... 142
ee-keepers Too Previous, ... 208
uckwheat, ...20
ees Our Theme, ... 195
ees, ... 173
ees Killed Horses, ... 174
est Honey Gatherers, The, ... 9
all of Bees with Queen, ... 95
ees on the Farm, ... 143
acteria, ... 160
ee as a Sign Painter, ... 251
ritish Honduras, Report from, ... 225
ees Make Record, ... 209
ee Journals of the World, ... 237
icago-Northwestern Convention, ... 10
Countrified," 175
onsult the Records, ... 223
areless Handling Results in Low Prices, 224
omb Building, ... 1
hunk Honey, ... 47
an We Get More for Our Honey? 55
alifornia Letter, ... 88
yprians are Vicious, ... 95
yprians and Other Races, ... 115
utting a Bee Tree, ... 127
ompressed Cell Cups, Cleaning and Protecting, ... 135
Cotton" Hive, The, ... 135
an Bees Rear Drone Brood from Eggs Laid in Worker Cells? 166
omb-building in Shallow and Deep Frames, ... 158
omb Honey Not Manufactured, ... 162
uban Competition, ... 170
onvention Echoes, ... 244
on't Burden Your Brain, ... 18
read Enemy of the Florida Bee, A, ... 43
artmoor Honey, ... 36
eath of Capt. Hetherington, ... 42
ickel Theory, The, ...34, 77, 91
eacon Hardscrabble Dead, ... 81
eacon Hardscrabble, The Late, ... 149
eclining Lumber Supply, The, ... 217
Eucalyptus Robusta, ... 19
"Extracted Honey," 19
End Staples in Brood Frames, ... 61
English Bees in India, ... 182
Editorial Shears, The, ... 173
Formalin Gas for Foul Brood, ... 11, 24, 50
Foul Brood in the Apiary, ... 24
Foul Brood, ... 246
Frames, Shallow and Deep, ... 30
Flies, Not Bees, ... 73
Fermenting Honey, ... 94
Frame Spacing, ... 95
Forming Nuclei, ... 110
First Civil Service Examination in Apiculture, ... 214
Florida Not a Queen Breeders' El Dorado, ... 221
General Notes, ... 95
Goozenheimer und the Bee Cure, ... 216
Hamilton County (Ohio) Bee-Keepers' Association, ...13, 229
Hardscrabble Letter, ... 36
Honey Comb, ... 71
Hive Construction, ... 92
Henry Alley Takes a Bride, ... 126
Hive Ventilation, ... 155
Hardscrabble Interviewed, ... 188
Home-made Queen Rearing Devices, .. 199
Handling Swarms, ... 208
Hardscrabble Letter, No. 2, ... 209
Harvesting Bee Stings, ... 215
Hardscrabble Letter No. 3, ... 229
Handling Beeswax, ... 257
H. C. Morehouse Dead, ... 195
Honey Plants, ... 118
Is Honey Strained or Extracted? 20
Improved Queen Rearing, ... 95
Irish Bee Guide, The, ... 148
Jefferson County (New York) Bee-Keepers' Society, ... 42
Keeping Swarms Separate, ... 142
"Karo Korn" vs. the Real Thing, ... 172
Keeping Down an Excess of Pollen, ... 209
Large Honey Crops, ... 8
Laying Workers, ... 53, 184
Let the Honey Get Ripe, ... 148
Look Upon this Picture, and Then on This, ... 236
Lenkoran or Persian Bees, ... 225
Milk and Honey Farm, ... 6
Mysterious Act, A, ... 7
Must Honey Take a Back Seat? 42
Manipulation, ... 48
Mosquito Hawks, ... 95
Mr. Theilmann Dead, ... 151
More Than 100,000 Bees Were Killed, .. 249
Migratory Bee-Keeping in Florida, ... 176
Mating of the Queen, ... 184
New Apiarian Invention, ... 18
New York State Institutes, ... 22
National Bee-Keepers' Association, ... 35, 87, 162, 190
National Election, The, ... 42
New York Apiary, A, ... 45
New Zealand, Apiarian Conditions in, ... 70
New Inventions, ... 96
No Punic Bees in Algeria, ... 137
National Convention, The, ... 188
Notice to Foreign Patrons, ... 191
Notes in General, ... 208
National Nominations, ... 236
Noteworthy Thaw in Missouri, ... 63
Notes and Comments from the French, 230
Ohio's New Foul Brood Bill, ... 32
Observation Hive, A, ... 88

One Boy on the Farm, ... 96
Orange Blossoms as a Nectar Yielder, The, ... 132, 133, 149
Orange Blossom Honey, ... 157
Observation Hives, ... 170
Orange Blossom Honey Scarce, ... 183
Pennsylvania State Bee-Keepers' Association 16
Prince of American Bee-Keepers, ... 68
Pushing, Plucky and Progressive Bee-Keepers, ... 83
Prevention of Increase, ... 111
Pennsylvania State Association, ... 114
"Pat" Still in Cuba, ... 172
Punic Bees, ... 180
Position of Entrances, ... 231
Phacelia Tanacetifolia, ... 53
Phacelia as a Forage Plant, ... 138, 221
Poisoned by Honey, ... 187
Preparing Barrels for Honey, ... 193
Queen Rearing, ...3, 109
Queen Hunting Expedition, A, ... 141
Quilts for Hives, ... 142
Queen Breeding in Florida, .. :. 258
Queen Restrainer, A, ... 219
Removing Sections from the Super, ... 65
Refuse Beet Sugar for Bees, ... 91
Rural Bee-Keeper, The, ... 106
Rocky Mountain Bee Journal Sold, ... 125
Regarding the Deacon, ... 173
Remarkable Incident, ... 222
Report for 1904, ... 224
Relating to Swarms, ... 230
Sectional Hives, ... 51
Selling Extracted Honey in the Local Market, ... 61
Selfishness of Bees, ... 77
Shall We Advance? 105
Small Packages for Extracted Honey, .. 117
St. Croix Valley Honey Producers' Association, ... 118
Sulphur Cure for Bee Paralysis, ... 125
Sugar Feeding Denounced, ... 241
Swarming Observations, ... 247
Shallow Frames Best, ... 248
Success and Failure, ... 250
Scientists from Abroad, ... 206
Still Advancing, ... 239
Shallow vs. Deep Frame Controversy, .. 179
Shallow Hive Defended, ... 220
Treatment of Foul Brood, ... 43
That Frame of Foundation, ... 56
The Future, ... 59
The Making of the Queen Bee, ... 62
The War Horse, ... 136
This is a Puzzle, ... 143
The Old Wiley Pleasantry, ... 150
Two Florida Nectar Yielders, ... 183
The Deacon's Message, ... 188
Tunisian, or So-Called "Punic" Bees, .. 202
The Season, ... 208
The Best Bee, ... 214
That Puzzle, ... 215
That Drone in Worker Cell, ... 222
Uncapping Device, An, ... 145
Uniting for the Honey Flow, ... 231
Value of Apiculture in America, ... 32
Wiring Brood Frames, ...
Winter in Colorado, ... 23
What are Legitimate Lines of Work? 43
Wiltshire Ballad, ... 56
W. L. Coggshall in Florida, ... 61
Wax Production in Argentina, ... 75
Wintering, Results of Some Experimenting in, ... 76
Western Illinois Convention, ... 112
Wiring Frames, ... 115
Wintering Experiments, ... 139
What Constitutes a Good Queen? 15
Where Are the Straw "Skeps?" 25
Where they Get Orange Bloom Honey, 19
We're Not the "Only Pebble," 23

THE BEE-KEEPING WORLD.

Notes from Germany, 15, 37, 57, 78, 98, 119, 122
145, 167, 191, 210, 232, 252.
Turkey, ... 15, 14
Austria, 16, 120, 146, 168, 192, 21
232, 253.
British Honduras, ...1
Switzerland, 38, 58, 98, 146, 16
192, 211.
Italy, ... 37, 58, 80, 10
Tasmania, ...3
England, .. 38, 119, 191, 212, 23
Australia, ... 38, 2
Belgium, 40, 78, 99, 120, 145, 16
211, 234, 253.
Palestine, ...
Chili, ...
Siberia, ...58, 14
France, 58, 78, 99, 121, 144, 193, 21
253.
Russia, ... 78, 100, 1
Abyssinia, ...
Scotland, ...
Holland, ...
Argentina, ...
Ireland, ... 98, 1
Tunis, ... 98, 2
Denmark, ...
Brazil, ...99, 1
Spain, ... 99, 1
Algeria, ... 100, 1
Norway, ...1
Greece, ...1
China, ...144, 166, 2
Arabia, ...1
Bohemia, ...2
Japan, ... 2
Servia, ... 2
Africa, ... 2

CORRESPONDENTS AND CONTRIBUTORS.

W. W. McNeal, John Hewitt, Dickson
Alley, M. F. Reeve, Rev. C. M. Herrin
H. M. Jameson, Arthur C. Miller, F, Grein
Dr. O. M. Blanton, C. S. Harris, J. E. Joh
son, John Hardscrabble, Wm. T. Gillilan
E. L. Pratt, Thos. Worthington, John
Grant, C. H. W. Weber, "Swarthmore," He
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G. Sammis, P. W. Stahlman, E. F. Atwat
T. S. Hall, Mrs. Sarah A. Smith, O.
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O. C. Fuller, J. E. Hand, G. A. Nunez,
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ILLUSTRATIONS.

Charles D. Winslow, 6; Head of Worker Bee, 7; The Deacon's "Purps," 12; Comb Frame for Bee Hive, 22; C. H. W. Weber, 24; Bee Attacked by Florida Ant, 29; Mr. Loane's Apiary in Tasmania, 39; Hineman's Apiary, 46; Bees and Chrysanthemums, 52; Coggshall Brothers, 69; The Deacon's Last Portrait, 81; Bee-Keepers at the Ohio Capital, 83; A. E. Painter, Esq., 83; Alley's "Bug House," 89; Dr. Smyth's Apiary, Donemana, Ireland, 93; Bernard A. Cromwell and Mother, 97; Mr. C. Theilmann, 111; Smith's Wiring Device, 115; Views of A. E. Willcutt's Apiary, 116 and 117; An Austrian Hive, 120; Orange Blossoms, 132; Cell Cleaning and Incubating Board, 135; Dr. C. C. Miller, 138; Uncapping Plane, 145; Clover and Basswood, 152; Hill's Observation Hive, 171; Poppleton's Fleet, 176; Interior of Poppleton's Transport, 177; Indian River Shore, 178; Course of Queen's Flight, 184; Hardscrabble's Ghost in the Editor's Sanctum, 189; H. C. Morehouse, 195; Home-made Queen Rearing Devices, 200 and 201; An Open Air Colony, 207; Queen Restrainer, 219; Apiary of Geo. B. Howe, 224; Group of Ohio Bee-Keepers, 228; Mr. A. J. Halter and Apiary, 250.

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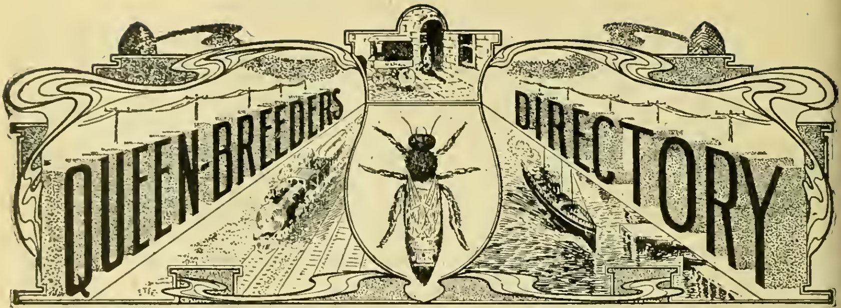

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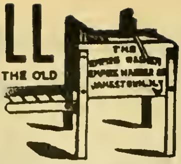
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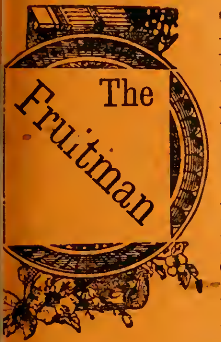

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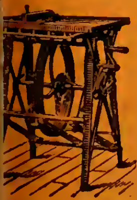

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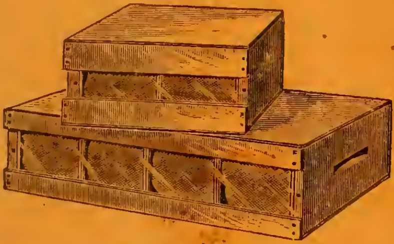

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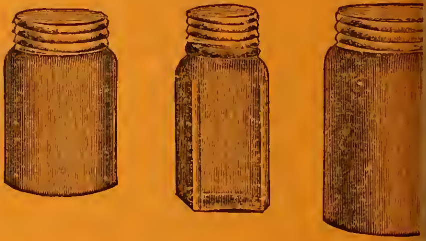

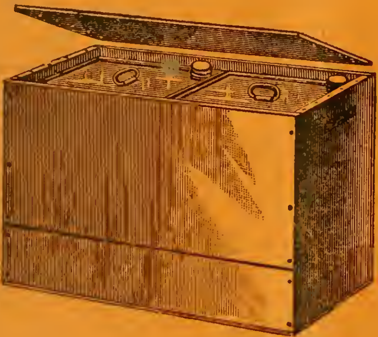

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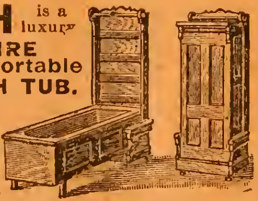

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THE AMERICAN BEE-KEEPER

Vol. XV JANUARY, 1905. No. 1

THE "GOING-TO BEES."

Suppose that some fine morn in May
A honey-bee should pause and say,
"I guess I will not work today,
    But next week or next summer,
Or some time in the by and by,
I'll be so diligent and spry
That all the world must see that I
    Am what they call a 'hummer'!"

Of course you'd wish to say at once,
"O bee! don't be a little dunce
And waste your golden days and months
    In lazily reviewing
The things you're 'going' to do and how
Your hive with honey you'll endow,
But bear in mind, O bee, that NOW
    Is just the time for 'doing.'"

Suppose a youth with idle hands
Should tell you all the splendid plans
Of which he dreams, the while the sands
    Of life are flowing, flowing.
You'd wish to say to him, "O boy!
If you would reap your share of joy
  You must discerningly employ
    Your morning hours in sowing."

He who would win must work! The prize
Is for the faithful one who tries
With loyal heart and hand; whose skies
    With toil-crowned hopes are sunny.
And they who seek success to find
This homely truth must bear in mind:
"The 'going-to bees' are not the kind
    That fill the hive with honey."
—Nixon Waterman in Saturday Evening Post.

HOFFMAN FRAMES, QUEENS, ETCETERA.

A New York "Dutchman" Finds Some Things Which Do, and Others, That Do Not Accord With His Own Ideas, and "Speaks His Piece."

By P. W. Stahlman.

FRIEND HILL:—First, I wish to say a few words in regard to the Hoffman frame. In some few ways it is all right, but in all other ways it is wrong. It has a great thick top-bar, which is favorable to keeping the bees worn out in going long distances to enter the super; and they will not enter the super as readily as with a thinner top-bar.

Next, those great side-whiskers, called "spacers," on the end-bars are a perfect nuisance. The world may be in favor of Hoffman frames, but I would not take enough of them as a gift, to fill all my hives. Some bee-keepers plane off the projecting spacer, even after combs are built, and use instead a spacing staple.

We do not all see things in the same light; so let those who like the Hoffman have them, but let us have something better.

Now comes the one great point upon which I am as firm as are the friends of the Hoffman frame, and that is the matter of queens. Though I have kept bees but sixteen years, a man ought to learn a few things in that time. If he doesn't, he might as well sleep his life away as to attempt to keep bees for dollars and cents. I have bought queens from a number of breeders. Some were good and many were poor affairs. I know from experience that a queen which has been jammed around and abused in the mails is not so good as one reared right in the apiary where she is to be used. They will be superseded sooner and are often shorter lived.

I believe in rearing queens from the best stock, and in the infusion of new blood to keep up the vigor of the colonies. A queen that cannot keep an eight-frame hive overflowing with bees, ought to go to the bone yard. Such queens are kept at a loss.

To rear my queens I have a number of small hives, each holding five 6 x 7 frames. These I set anywhere in the yard and stock them with a few bees (a quart is plenty), and a queen. In due time these little hives will be well supplied with eggs, and the queen may be taken to use, or to be destroyed, and a queen-cell about due to hatch may be given them, and all wil be well. This may be done all through the season, when drones are present and by selecting a great improvemen in stock may be made.

I hear someone ask. "How do yo winter these little colonies?" And th advice, "Better use standard frame and unite in the fall." My answer is Here is the advantage of small hive Before cold weather comes on, o here, before buckwheat ceases t yield. I tier up four of these little co onies, which gives me three extr queens to sell. I also have a goo sized colony with which to go in winter quarters, and which will wi ter as well as any, and go through th spring as well. By dividing up in th spring I am ready to "go it again You need not rob your other coloni of two frames of brood and bees, an thus weaken them and lose the whi honey crop. And when fall com and you find a number of your lar colonies queenless, you need not wa around with your lip almost touchi the ground, saying, "I don't kno what to do." If you have the ext queens in the small hives you c unite one with the queenless colon Then they are welcome.

Again, these little colonies will ta care of themselves to an astonishi degree. I have not fed any all t season, and all have a great plenty winter on. You can see some these little hives in the picture—so of them four stories high, ready f winter. Most of the small hives a hidden by the large ones, and cann be seen.

A queen can be found more read in such a hive than in a large one, a their mating is almost certain, a sually sooner than in a large hive full f bees. The queens may be left in few of the small hives so as to pply brood to keep up others if eeded. I have no ax to grind, and give this for what it is worth. Also e picture of this Dutchman's apiary, hich will be improved next season.

REPORT FOR 1904.

Spring count, 102 colonies. Increasd to 200 colonies, four and a half tons f honey, one-fourth comb. Bees in ood shape for winter, and no foul rood.

I suppose some will feel like throwg stones at me for condemning the offman frame, but please don't hurt e. Just one word, which also falls on the manufacturers of hives, etc., d that is the shabby division boards at are furnished with hives. Why on't you make a solid board, at least half-inch thick, with top-bar? hen they woud not crawl all ver the bee yard in case you do hapen to get one out of the hive long nough to see how poor they are. oly Moses! do wake up and improve e division boards, such as I have en lately. It makes a man hate himlf to use them. A great many ings are made to sell and not for ractical service. The fence separar is a good thing, only they should nailed as well as glued, and a little ore pains should be taken in putting em together.

So long, brother!

Gallupville, N. Y., Oct. 20, 1904.

AMERICAN BEE-KEEPER

MR. STAHLMAN'S APIARY.

QUEEN-REARING OBSTACLES.

Suggestions as to How They May Be Reduced or Overcome.

By Arthur C. Miller.

THE EDITOR'S recent comments on the drawbacks to queen-rearing in Florida have recalled some of the drawbacks experienced elsewhere.

Hindrances to bringing queens to maturity may be divided into two classes, those within and those without the hive. Those within relate to the selection of the larva, its care and perfect development and the subsequent nourishment and environment until mated.

The external conditions have to do with the climatic conditions, presence of predatory birds and insects, and quantity and vigor of males.

Consideration of the factors relating to rearing, up to the time the queen emerges from the cell, may be omitted from this article, but from that period onward much may be advantageously said. In a normal colony the young queen emerges into an atmosphere of warmth and high humidity and has accessible an abundance of nutritious and, in a sense, stimulative food. Such are the conditions when the bees of their own volition rear a queen either for swarming or supersedure. When man steps in he must produce these same conditions if he would meet with success. In a warm and humid climate this is easy to accomplish, but in less favorable places it requires care and attention. Pains must be taken to have the nuclei or colonies with the young virgin queens (I will call them "mating" colonies for convenience) well supplied with young bees, and the store of pollen and honey must be abundant, and the supply from without must be constant if we wish to secure full nourishment of the young queen. Warmth and full feeding mean vigor and activity for her, so that not only will she be ready to mate early, but she will be better able to overcome adverse conditions outside.

It is not that it takes a lot of bees to feed the young queen, but that the population be abundant enough to keep internal conditions of temperature, humidity and kinds of available food as near as possible as they are in a full colony.

Such conditions mean fewer "missing" queens.

Produce such conditions, give such "mating colony" a good, well-bred queen, and then keep her shut in until you are ready to have her fly. The next factors to be considered are the external conditions. The climate we cannot control, but we can prevent the queens from flying on any but favorable days, so in a measure we surmount that difficulty. Troublesome birds can be largely driven from the immediate neighborhood of the apiary, or killed. Often a few discharges of a gun (without shot) towards a bird will drive it permanently away. Also I believe the ravages of birds much overestimated.

Predatory insects are difficult to combat, and we have very few here; so I cannot speak from much experience with them. But it would seem as if the evil might be greatly lessened by letting the queens fly at such times of day as the troublesome insects were least in evidence.

Quantity and vigor of males are matters quite within our control and are factors which will well repay every queen-raiser for a lot of thought and care. Quantity is easily secured, the methods having been exhaustively given by many writers. Unfortunately, they have stopped with that. It matters not how many males are present in the hives, unless they are warm and well fed they will fly but sparingly, and seemingly without any desire to seek the queens. A lusty, well-fed drone from a populous stock can hardly be handled without causing the death convulsion, while an underfed one can scarcely be forced into the same condition.

To keep drones alive out-of-season, or under adverse weather or crop conditions, it is often advised that they be kept in a queenless colony. This will assure the non-destruction of the drones, but unless the colony is kept in a high state of thrift by a full food supply and the constant addition of emerging brood, the drones will be of but little value for our purpose. A few hundred drones in a thrifty stock are worth many thousands in an unthrifty one. And "thrift" in this connection must be taken in the broadest sense of the word.

Given the vigorous well-fed queen and similar drones, what more can be done? Very much.

During the past season I was called upon to solve the delayed mating and high per cent. of loss of virgin queens in an apiary of my son's. I puzzled over it for many weeks, until at last I found that the drones were al through flying before the young queen took flight. There were several possible causes for this, but as I am uncertain as to the importance of each I will not detail them. But the trouble was easily overcome in this way The drones and the queens were kep shut in until I thought best for then to fly, and then both given liberty a once.

It is neither necessary nor wise to confine the drones all the time prio to the time we want them, but only necessary to shut them in the nigh before the day we want their services In shutting drones into a populou stock, pains must be taken to give much room and ventilation. I found a handy and safe method in placing a full-sized chamber beneath the colony, covering the bottom of the chamber with a sheet of excluder zinc and raising all from the bottom board so as to give free draft of air. So confined, drones will do nicely fo half a day or more, and be ready to fly the instant we release them.

After the drones have been free fo about a quarter of an hour, I releas all queens ready to mate. Roughly, this may be known by the age, but where the apiarist is anxious to reduce risk of loss as low as possible, then he may release only those virgins which constantly open and shut the vulva. Such queens may be relied upon to fly and mate at once. Commercially, it would probably be unprofitable to go to the trouble involved in such observations.

Providence, R. I., Dec. 10, 1904.

SWARMING.

Conditions and Their Influence.

By Adrian Getaz.

THE REPORT of the Society of Department de la Meuse continues in the Apiculteur. We ind the following questions and answers by the members:

15. Concerning the exposition of he hives. Those turned to the east ive 61 per cent.; those to the southast only 6, and those to the south I per cent. of the swarms. The other directions none, except two per ent. to the northeast. The report dds that most of the apiculturists, r rather nearly all, place their hives urned toward the south, or about; ience the larger number of swarms rom these directions.

16. It is known that the bees need large quantity of water for broodearing, and it might be suspected hat the closer the water is, the more rood would be raised, and that more warming would ensue. The report oes not show it to be so. The apiries at a distance from the water ave as many swarms as those placed loser.

17. Size of the hive. The box ives of a capacity of 35 to 40 cubic ecimeters gave 60 to 70 per cent. of warms. The frame hives, one story, f 50 to 60 cubic decimeters, gave 25) 30 per cent. The large Dadant latt hives only 5 per cent. One of ne members, Mr. Guillemain, reportl that with the Dadant Blatt hives, is very seldom that he has any warm at all.

To have any idea of these sizes I ust state that an American cubic ot equals 33 cubic decimeters. The adant Blatt hives are about the same as that used here by the Dadants themselves. Their capacity is practically unlimited, since additional stories can be used when needed. It must be remembered also that the box hives are used in Europe to produce chunk honey and the frame hives invariably (or nearly so) to produce extracted honey.

18. In regard to the amount of honey in the hives, 45 per cent. of the swarms came out from hives having from nothing to twenty pounds of honey. 41 per cent. when there were twenty to forty pounds of honey, and only 14 per cent. when there were from forty to sixty pounds. It seems by that, that when the colonies are disposed to swarm they do it before having full provisions.

19. The amount of empty combs at the disposition of the queen to lay in is the most important factor in inducing swarming. Only 20 per cent. of the swarms came from hives having empty cells in the brood nest, and 80 per cent. from those in which the bees were crowding the queen.

20. A lack of ventilation or an excess of heat increases considerably the disposition to swarm, but no definite figures can be given.

21. The swarming takes place from four to thirteen days after the opening of the main flow (which in that part of France is from the sainfoin.) The average is six or seven days. It is noted here that this is largely a question of locality, and in other places, entirely different dates would obtain.

24. The majority of the swarms cluster at a distance of eighteen to thirty feet from the hives. Only three per cent. go beyond 100 feet, 200 feet being the limit. This, like all the report, is in regard to first swarms with laying queens. A swarm with a virgin may go almost anywhere.

25. It was intended to ask where the swarms clustered, what proportion on trees, bushes or on the ground, etc., but unfortunately the printers forgot to put it in. The members are requested to report on this next year.

26. Half of the swarms observed, clustered between three feet and six feet above the ground, 18 per cent. below that, some of them on the ground. Only 12 per cent. clustered at more than twelve feet above the

ground. The report says here that one of the apiaries observed is in a grove of tall trees, where the bees have to cluster at a considerable elevation because there is nothing else. But for that, very few would cluster at twelve feet or above.

These figures are much lower than we would expect. But it must be remembered that in Europe, the bees are usually kept in the gardens or in the orchards, outside of which there is usually nothing but open fields. So the bees have to cluster within the enclosure on whatever trees bushes, etc., may be there.

Perhaps, while on the subject, I might give my own experience. My Middlebrook apiary is partially in a grove of tall trees. In front of the apiary there is a grove of cedars. The swarms usually go in the cedars and cluster anywhere from the lowest limbs to about midway to the top, that is, from fifteen to, perhaps, thirty-five feet from the ground. The few that go to tall trees invariably cluster on the lowest limbs.

The Beaver Creek apiary is on the edge of a grove of tall trees, the hives turned toward the inside of the grove. The majority of the swarms cluster on some of the tall trees, either among the hives or immediately in front, and always on the lowest limbs. About one-fourth of the swarms go to the orchard a hundred feet distant, in the rear of the hives, and settle on the fruit trees, usually on some plum trees that are rather low and have a very thick foliage.

27. Seventy per cent. of the swarms cluster in the regular, well known form, the others in irregular forms, depending chiefly on the place where they are.

28. The great majority of the swarms go toward the south, or rather between the southeast and southwest. The report suggests that they go toward the sun. I rather think that they go in that direction because the hives are usually turned that way, and that they simply go right straight before them, or about.

In the part of the above report republished in the December number of The American Bee-Keeper, the assertion is made that the one-year-old queens are more liable to swarm than the others. That as
sertion I stoutly denied, but after al
I may have been too hasty.

For those who may not have kep
the December number, I will say tha
the answer to the 11th question show
ed that 43 per cent. of the swarm
came from colonies having swarme
the year before, and therefore ha
queens one year old, 20 per cent. fro
colonies having swarmed two yea
before, and the rest from colonie
having swarmed three years befo
or longer. The conclusion th
queens one year old swarm the mo
is almost irresistible.

This I denied, for the two follo
ing reasons:

1st. The actual 43 per cent. of on
year-old queens is not conclusive. T
be so, it would be necessary to kno
how many such colonies were in o
servation, and know what proporti
of them did swarm.

2d. With me, but very few of t
one-year-old queens (or rather th
colonies) swarm. And swarmi
can be prevented to a large exte
by renewing the queens every ye
or at last every two years.

These two points are absolute
correct, and I am not going to ta
them back. Where I was at fault,
by not taking into consideration t
other conditions that have a beari
on the question.

But before going further, let us lo
at the conditions which induce swar
ing. Sometimes it may be one, som
times another, and perhaps often mo
than one.

One is the extreme heat, or lack
ventilation, or any condition that m
render the hive decidedly uncomfo
able. In such cases, bees may swa
even without beginning the constru
tion of queen cells.

Often it is the failure of the que
to lay sufficiently. Queen cells a
then built, and if the season of t
year and weather conditions are
right, swarming will follow. If n
the queen will be superseded.

More frequently, it is the lack
sufficient room, or rather of emp
combs, for the queen to lay; that
the cause of swarming. This and t
preceding are really about the san
viz: not enough eggs laid.

Now, like most of the Americ
bee-keepers, I am a comb honey pr

ducer, and we can now look into that part of the program.

In working for comb honey, we can give room enough in tne supers, but it is only foundation, instead of built combs. And when the honey comes in freely, the bees cannot build out the foundation fast enough to hold it, and they cram it into the brood nest until there is not room enough for the queen to lay, and then swarming takes place.

But the most remarkable and, to me, inexplicable feature of the case, is the fact that the young queen will defend herself, and prevent the bees from crowding the brood nest with honey, far better than an older one. That's one thing for which I don't see any adequate explanation, but it is a fact all the same; and I presume the reason why young queens do not often swarm.

However, the above applies to comb honey work. The European apiculturists who use modern hives always work for extracted honey. That changes the condition entirely. If enough empty combs are given, the queen will not be crowded, but she will have all the space needed; and no matter whether she is one, two, three or four years old, or more, there is not likely to be any swarming until she begins to fail.

There is another condition that I should have taken in consideration. Most of the bees in Europe are kept in box hives, rather straw hives or skeps, entirely too small. The modern or movable-comb hives are often one-story affairs, entirely too small.

I have but very little experience with small hives, and furthermore, I don't want any of it; but I can readily see that in such cases the most prolific queens, usually the youngest, will fill all the available space the quickest and swarm the first and most often. In fact, an inferior queen might have all the space needed and not swarm in a hive too small for a better queen.

Knoxville, Tenn., Dec. 10, 1904.

Mr. Wm. Smith, Cameron, Calif., writes that "the past honey season was a flat failure in Southern California."

Can you use a few sample copies?

DISADVANTAGE OF UNPREPAREDNESS.

The Lament of a Massachusetts Apiarist.

By Joe Pen.

EDITOR BEE-KEEPER: — A stinging cold day in March found me in close conversation with a gentleman owning the finest cattle in the county, the prize-winning sheep, thousands of acres of pasture, woodland, brooks, stones and rattlesnakes, and thirty stands of bees that went into winter quarters with supers and honey boxes all on.

After a lunch on cold lobster and hot Scotch, I started in high spirits on my ten-mile drive home. The prospect of being associated with a prominent gentleman who would have a dozen apiaries, rear queens by the thousand, supply the champagne-tinted palates of our exclusive summer residents with choicest honey, filled me with glee, although the thought that I would not be able to enter the ranks of those who were rearing queens in quantities rather clouded the picture, but the stock I had worked so hard to improve, and when I had got it on as good a honey-producing basis as I could, would simply be transferred to a new field, and the few short cuts in the business I had studied out would be applied to a larger field. This was the mental picture. Now for the facts and results:

A large order—not so large as we at first intended—was made out. When it was forwarded, instead of hundreds of hives, it was twenty. But with the thirty eight-frame hives this would do, and of course more material would be coming right along. Strange as it may seem, many of the colonies survived without any protection. The last year's honey boxes being on the hives, as I mentioned before. Twenty to thirty "below," and no protection, out on their summer stands—how did a bee manage to survive?

A large house was in course of construction, plenty of carpenters, and yet not one for the twenty hives.

After much urging and strong talk, the hives were assembled, bees, in nail-kegs, soap-boxes and any old thing were produced, not when they should have been, early in the season, but when the honey flow was at its height, and some even when the best of the flow had passed. These had to be driven out and started on ten sheets of foundation. Then old hives and boxes were well filled with honey and brood.

Sections were not ready for the strong colonies. I could make the trip but once a week and spend one day. The promised honey house was never built. The bees were located in an orchard, five hundred feet from the carpenter and paint shops. Smoker would be thrown into some obscure lime barrel by an inquisitive carpenter, and an hour lost in reclaiming it. Tools, supers, hives—everthing misplaced.

"Next week," "next week," we will have a bee-house, an extractor, and everything would go fine; so I was mollified again and cooled down from a temperature nearly 200 to 110, and not until the season had practically passed did I realize that my season's work for my wealthy employer was lost, and only by strenuous night work was I able to keep my own stock in condition, which I fortunately kept at my home. One colony produced ninety pounds of honey, and had these bees been handled as I desired, there is no reason to doubt that a good crop could have been secured.

These bees are now in fine condition for winter, well packed, and I wonder, as I try to keep the smoke of my endless fire from making me weep as I write, "who will be the next lucky man," as they say at the fairs.

I cannot tell you of the exasperating experiences I have had in handling this small bunch of bees—of the painful sensation of utter helplessness that came over me at times when I realized that ultimate failure was staring me in the face, and yet I could not throw up my contract. I disliked to acknowledge defeat when I was powerless to prevent it. I could write a volume on my experience this summer, and, after all, I never met a finer gentleman, a more kindly disposed man, cheerful, generous and broad-minded, but not a bee man. Do you, Mister Man, realize that Mrs. Bee will wait for no man, for she knows that winter waits for no one, and you must anticipate her wants and needs or you will come to grief, as did your friend.

I heard an old darkey sing a song when I was quite a boy, each stanza ending with these words "The bogey man will get you if you don't watch out."

(The foregoing letter to the editor is published because of the excellent lesson upon the necessity for preparation which it teaches us. We sympathize with our correspondent,—Ed.)

TREATMENT OF FOUL BROOD.

By J. E. Johnson.

ON PAGE 246 Mr. Hewitt gives some valuable points on foul brood, informing us that he is the discoverer of the plan of treating the disease usually spoken of as the McEvoy plan. Such being the case, we certainly are greatly indebted to Mr. Hewitt. But, by reading further, we find he makes the following unwarranted statement: "This is the only cure that will ever cure foul brood except heat." Also he says, when comparing strawberry seeds to the bacilli and spores of foul brood: "Just fancy he was able to kill the plant with some kind of gas or other nostrum, how would he kill the seeds?" If I understand correctly, Mr. Hewitt's plan is not a cure at all. The bees are simply separated from the diseased combs, hive and brood, then the disease is destroyed by heat, and when bees have used all honey in comb-building, the next brood will not be near any germs and spores, consequently free from disease.

In olden times, when the black plague nearly depopulated whole cities, those who had not contracted the disease simply fled, after having set fire to the city, and as both the dead people and buildings had been consumed by fire, the disease was stamped out. As I understand it, the Hewitt or McEvoy plan is somewhat on that order.

Because Mr. Hewitt has not been

ccessful with gas in disinfecting oes not in any way prove that it can ot be, nor will ever be done. It erely proves his non-success.

In Chicago alone there has been ver a dozen cases of smallpox this ear, besides many cases of other in- ctious diseases, but it was prevent- l from spreading, just for the simple ason that gas does kill the seeds or ores of disease germs, when prop- ly applied. This has been proven eyond doubt. If it were not so, the pid intermingling of people by odern modes of travel would soon use fearful epidemics over the hole world. But happily for us, as on as any one is found to have an fectious disease, the law says the ouse must be quarantined, and when e patient is either dead or recover- l, the room is disinfected and pro- ounced safe and free from all dan- r of disease, and people continue to ccupy those same rooms without nger. A physician will visit these tients of smallpox or other infec- ous diseases and still mingle with ciety without danger of carrying e disease, by the proper use of for- aldehyde gas and other means; and Bacillus alvei and its seeds are of e same nature, they will succumb the same treatment.

The man who invented the first nt locked musket might have said at a flint-lock gun was the only nd of a gun that would ever shoot; t modern firearms prove the con- ary. So, although we are greatly debted to Mr. Hewitt for his very portant discovery, the time of dis- veries is not yet ended. As I have id before, formaldehyde stands at e head as an effective disinfectant, cause by uniting with the oxygen of e air it produces formic acid, and formaldehyde is of about the same ecific gravity as air, it will pene- ate where air will. I say this not n my own authority, but because ome of the best authority in the orld says so, and the non-success of e air-tight tanks tends to prove this.

On page 208 Mr. O. C. Fuller says tried formaldehyde, using his nks air-tight, but failed to get good sults; then he raised the lid and nned in the air with his hat, but still iled. If you put some wood in a stove and by starting a fire and giving a steady draft it will burn, but if you then close the stove air-tight, the fire will very quickly go out. Why? Because fire depends upon a union of the fuel burned with the oxygen of the air. Fire is the product of oxygen united with the fuel, and you cannot even burn a pine shaving without oxygen. It would be just as reasonable to expect the fire to burn steadily in an air-tight stove by occasionally lifting the lid and giving a puff with your hat and closing air-tight again, as to expect a steady forming of formic acid in all parts of the tank by a similar action.

It is just as necessary to have a steady flow of oxygen to unite with formaldehyde to produce formic acid as it is to have a constant flow of oxygen to unite with the fuel in your stove to make the fire burn; only that oxygen is much more active in a high temperature and is not needed nearly so fast in producing formic acid as it is in producing fire. The Ohio bee-keepers only proved their inability to use the gas properly. They never will prove formaldehyde inefficient in killing either germs or spores, because its value is firmly established as a germ and spore destroyer, when properly used.

As I said before, our laws compel the quarantining of people or animals having a contagious disease. Why should not the law do the same in the case of bees? If our government would apply the same rules and the same amount of energy to stamp out foul brood that it does smallpox, cholera and other diseases, then this foul brood question would be rapidly settled.

Williamsfield, Ills., Dec. 8, 1904.

COMB HONEY IN CUBA.

Something About It from the Pen of One of the Most Extensive Producers on the Island.

By C. E. Woodward.

EDITOR HILL:—A reader of your journal wishes to know if comb honey can be produced in Cuba satisfactorily. I answer, yes. Comb honey can be produced in

Cuba just as well as in the United States and, in fact, much better than in Florida, and can be kept just as long; in fact, it is produced both summer and winter, and constant and expensive vigilance is not required here in Cuba as it is in Florida.

I have kept comb honey here the year round and had no "weeping" or sweating from it whatever. In regard to producing a fine class of comb honey in Cuba, I will say that it all lays with the producer. The more care, the finer the product, and let me say right here that when the honey producers in Cuba learn this, then the desired results will be accomplished.

I have taken 400 pounds of first-class comb honey from a colony in a single season. My comb honey is sold in Havana for ten cents per pound. This is what I get for it in gold, laid down there.

Remember, as a rule, when you are producing a fancy class of comb honey, you are simply catering to the users of luxuries. Wealthy and stylish customers will have a fine article at any price. A little intelligence will prove this. See that not one pound of comb honey leaves your apiary that is not in first-class shape. A successful apiarist will look well to this point. Grade all the honey honestly. Above all, I beseech you, let taste and neatness be your leading star.

Matanzas, Cuba, Nov. 25, 1904.

PUNIC BEES AGAIN.

An English Clergyman Who Has Kept Punics for Twelve Years, Disagrees Emphatically with Prof. Benton.

By Rev. J. A. Kempe,

Vicar of the Parish of S. Veryan, Cornwall.

EDITOR AMERICAN BEE-KEEPER:—I notice a long article by Prof. Frank Benton in your October issue, and I am not a little surprised at some of his statements. I scarcely know how to express my astonishment at the statements I refer to, because my experience with Punic bees for twelve yea is so different to what Prof. Bentc says they are, that I feel sure the must be either some very great mi take, or there is something unde neath the surface that I know not ing of.

I see you say, on page 213, "th they have been active honey gathere and have been, under all circur stances, very gentle and amiable Surely this does not confirm Prc Benton's statement on page 204, th they are "spiteful stingers, as vi dictive as the worst race known."

As I have said, I have kept Puni for twelve years, and my experien with them is as follows:

1. Their temper.—I have nev found them more irritable than ar other kind of bee. I have always be able to handle them well and comfoi ably; in fact, my experience has be that they are less irritable than sor kinds I have had to do with, especi ly the Ligurian, which I found a mc savage race.

2. Wintering.—I never found a race winter better and wanting le attention and care than Punic be They require less covering and sta the damp of this climate admirab keeping perfectly healthy and kee ing their hives clean and dry.

3. They are proof against fc brood. I have not had a single ca of disease since I began to keep th race. I have on more than one occ sion given a swarm to friends who hives were infected throughout wi foul brood, which they put in the apiaries, and not a single swarm gave took the disease.

I was much struck by the fact th an "expert" of the British Bee-Kee ers' Association, who had "laug at," "scoffed at" and "ridiculed" r apiary of Punic bees, for at least tv years, when on his rounds visitii this district, entered an apiary bad infected with foul brood, and he sa to the owner: "You have the disea badly here. All your hives ha it except one, and this one is healtl and strong, and these appear to be different kind of bee. Can you a count for this?" And the owner r plied, "Oh, yes; those are M Kempe's kind of bees. They are grand lot. They never get foul brood."

This expert came and called on me and we had a long talk together, and before he left he ordered five swarms (which he took away on his bicycle a few days later) to put in other infected apiaries in his district. He found my statement true as to foul brood, and he asked if I would supply him with twenty or thirty swarms the next season; and he told me later that he had ordered and obtained queens of Mr. Hewitt, as I advised him, and that he was more than pleased with these Punics. He was quite converted.

4. Honey Gatherers.—They are grand workers and will be out, busy, very early and late, and even in misty, dull weather, when other bees will not venture outside their entrance; and this refers to honey gathering in sections, supers or for extracting.

I have never had, in all my experience a single crate of sections or a super injured in any way by "bee glue." I have been a great exhibitor for many years in large county shows, in the Royal shows of all England, in colonial exhibitions; and I consider my exhibits have been judged at these shows by first-class eminent judges, and I have taken a great many first prizes and medals, beating many "experts" in leading shows, which, I think, proves (far better than pages of correspondence) that these "poor despised Punics" are a grand race of bees, which do their work well, and are in every way an advantage and benefit to a bee-keeper.

5. Swarming.—In a large apiary, like mine, I have found, as a rule, that about one (or two at the most) out of the lot will have the "swarming fever" and throw five, six and even seven swarms and hatch several dozen queens; but the large majority will take readily to their supers (sectional or otherwise) and give a goodly harvest. I have taken as much as 185 (one hundred and eighty-five) pounds of comb honey from one hive, gathered in twenty-seven clear days. That I am contented with.

I do not know Mr. Hewitt personally (although I deal with him in Punic bees, and can most highly recommend him for his honest and straightforward dealings). He is quite as much a stranger to me as Prof. Frank Benton, and I would not have written this at all, only I feel it is my duty to bear testimony to the truth as I have found it in my twelve years' experience, and to stand up for my dear little friends, the "Punic bees." I can never sit still and hear them "ridiculed" and "spoken evil of," as they do not deserve it, for they have been good, faithful and valuable to me, and I verily believe they will be of the same value to any other bee-keeper who gives them a fair and honest trial.

Cornwall, England, Nov. 14, 1904.

EXTRACTING UNSEALED HONEY.

By Fred A. Parker.

MR. EDITOR:—I read with much interest the article by Mr. O. O. Poppleton in your September issue, entitled "A Popular Fallacy." To my mind this question of extracting honey before it is entirely sealed is, to some extent, a question of locality.

I know nothing of the conditions governing the production of honey in Cuba and Florida, except what I have read. In northern Santa Barbara county, California, and in Ivanhoe county, Nevada, honey could not be left on the hives until sealed without materially lessening the output. Not only is this true, but the quality of honey would not be improved. In both these localities, the flow often comes on quick, and it behooves the apiarist to make the most of it. In Lompac, Cal., I practice starting the extractor when the combs are sealed about to the middle, or one-half of the surface of the comb. This honey is then allowed to stand in the three-ton canvas-covered tank and evaporate until it attains the proper consistency. In most cases the bees would occupy from three to five days to complete sealing these combs There is where the gain comes from. The honey can ripen just as well in the tank as in the hive, and the majority of the bees are not compelled to lay idle, or resort to the brood combs, to find room to store the honey.

Mr. Poppleton says that "nearly or quite nine-tenths of all loss of weight caused by curing of newly gathered honey in the hive occurs during the first twelve or fifteen hours after it is first deposited in the hives." This being true, I see no reason in leaving the honey on the hives several days longer, thus limiting the storage capacity of the hive, just to allow the honey to lose the one-tenth in weight necessary to thoroughly ripen. Why not extract it and allow the honey to ripen in the tank, thus giving the bees room to work? I am not arguing for the extraction of honey before it is all sealed in localities with which I am unfamiliar, but I maintain that in northern Santa Barbara county, Cal., a bee-keeper would lose one-third of his yield and have no better or more salable honey by waiting until all the honey is sealed. I make it a practice to case no honey that weighs less than twelve pounds to the gallon, and so far as I know, no customer has ever complained of the quality, but many have been the compliments I received regarding the color, body and flavor of my honey. I had some experience this year helping extract honey in the apiary of Mr. J. F. Aitken, an extensive bee-keeper of Reno, Nevada. Owing to a rush in the comb honey business, this honey was left on the hives until it was entirely sealed and ripened. The result was that about one-tenth of the new combs were destroyed in the extractor, and we were very careful, often not throwing out two-thirds of the honey. The frames were the Langstroth, and were fully wired. Alfalfa honey is very heavy-bodied, and in a warm, dry climate, like Ivanhoe county, Nev., one should start extracting when one-third of the honey is sealed, and allow it to finish ripening in the tank.

This extracting of honey before it is entirely sealed is a common practice in portions of the West, and the fact that our honey is always in demand and commands a good price is evidence that it is a good article. The extracting and sale of unripe honey is not to be defended, and will react, boomerang-like, against the man practicing it; for he is not likely to sell this quality of honey twice to th same purchaser. But the extractin of partially sealed honey, allowing to ripen in a tank, is another propo sition. That is a scientific proces and I would not encourage the novic to attempt it; but the expert who use this method and thus increases h yield is to be commended. He is no an "unscrupulous person," but a le el-headed business man.

A man should study the condition of his own locality and practic methods that will bring him th largest yield of good honey, but h should not make the mistake of as suming that his plan is a general prin ciple applicable to all localities alik

Wadsworth, Nev., Oct. 18, 1904.

Our correspondent is correct, i that the "extracting of honey befo it is sealed is to some extent a ma ter of locality." However, we thin that Mr. Poppleton has never re ommended the practice of leavin honey upon the hive until sealed. Un der certain conditions honey may b in excellent condition to extract whe but slightly sealed, while under oth circumstances certain kinds of hone that is entirely sealed will not kee well. These are points with whic the expert is familiar, but not unde stood by the inexperienced. Expe skill in handling extracted honey not so important in the arid West a it is in most other localities. Cond tions there naturally take care of th honey under almost any and all ci cumstances. Not so, however, i many other places.—Editor.

SWARTHMORE DEMONSTRATION

Before the Pennsylvania Conventio

By our own Special Correspondent.

IN HIS REMARKS before the Penn sylvania State Bee-Keepers' Asso ciation, at its annual meeting hel in Harrisburg, December 6 to 7, E. I Pratt, of Swarthmore, said:

"I have been asked to prepare paper on some queen-rearing subje for this convention, and I think I ca not do better than to give a brief ex planation and demonstration of th queen-rearing appliances we have used in Swarthmore with so much success and satisfaction.

"When I first entered the queen-rearing field the laborious methods employed quite discouraged me. To continue in the business I must needs hire help or devise means to reduce labor. The latter I set out to do, and the things here before you are the results of my efforts."

Both the old and the more recent queen-rearing methods were briefly reviewed and the necessity for a separable and easily removable queen cell was clearly shown. To avoid the delicate surgical operations, we were compelled to perform by old methods (previous to the emerging of the young queens), a wooden cup is now used.

The top application of the "Swarthmore" pressed queen cups was explained and the many labor-saving points of a flange cup were set forth by demonstration.

The process of waxing the cups, pressing the cells and grafting them without royal jelly was gone through with and numerous questions from the floor were answered. The use of the Swarthmore open-top holding-frames and the manner of applying cell-bars, incubating and confining cages to them through slits in the sheets, from the tops of the hives, without disturbance to the bees, was also demonstrated, and the simplicity and labor-saving points of each carefully set out.

The speaker then branched into the wholesale possibilities of the Swarthmore plan, showing how large numbers of queen cells may be secured and cared for.

A number of small cups, set side by side in a little frame, so as to resemble a comb in which the breeding queen will deposit eggs to save the long process of grafting by hand, attracted considerable attention and brought forth much comment and many questions. It was shown how these little cups, each containing an egg, could be drawn from the frame, slipped into holding-shells and given to the bees for queen-rearing, and how other cups could be replaced in the frame for future use in cell getting.

Previous to his explanation of the miniature mating boxes the speaker quoted from his book, "Baby Nuclei," the following words of introduction:

"It was in 1881 that I first began to experiment with section-box nuclei for mating queens. Some three or four years later the plan I had been commercially successful with was published in the journals of that day and in pamphlet form, under the title of "Pratt's New System of Nuclei Management." Never to this day have I to any extent used more than a handful of bees in a little box for the sole purpose of mating my queens. My little baby mating boxes have been condemned by nearly all the professionals, including Mr. Alley, in whose yard I had the pleasure of studying with profit for some three or four seasons. In the face of all this opposition I have clung to my little mating boxes and have improved them from year to year, until we now have what is called the "Ideal." Time and time again have I called attention to the woeful waste of bees, labor and material by the older mating methods—but I could get no hearing until a recent year. It so happened that I succeeded in mating a large number of queens from my little boxes fitted into frames and hung on stakes, also attached in different ways to the sides of hives. My description of these experiments was admitted in part to "Gleanings in Bee Culture," which renewed interest in small mating nuclei, and the question now seems to command wide interest because of the wondrous saving in expense over any other method of queen mating."

In opening the queen mating question, the speaker said that twenty-five bees will mate a queen. Fifty will do it better, but more than a small teacupful is a positive disadvantage. The design of the Swarthmore mating nucleus box was shown, and the manner of hanging them to little T stands driven into the ground together with the manner employed to supply them with small combs and storing them with honey; also how bees are obtained and supplied in small lots to each little mating box.

While on the question of queen introduction, Mr. Pratt said: "It was Mr. Doolittle who showed us how to successfully introduce virgin queens to confined and broodless bees; Mr. Alley it was who taught us the use of the tobacco pipe for the same purpose, and it is hard for me to decide which is the greater gift. Both are golden."

"The folly of brushing the bees from small mating boxes directly they had mated a single queen is apparent," said the speaker, "when the same bees can be made to mate queen after queen, either by pre-introduction or by giving ripe cells." When the simple manner of giving cells to baby nuclei was demonstrated, applause followed.

After going through the different means employed in quickly feeding the babies with bulb and tube, or by means of little bottles, Mr. Pratt showed the convention how substantial bee hives are made by him from paper at a cost of only a few cents per hive, and a little labor; at the close of which a standing vote of thanks was given to "Swarthmore" for his interesting talk.

At the close of his remarks, Prof. H. A. Surface, M. S., Economic Zoologist in the Pennsylvania State Department of Agriculture, at Harrisburg, and president of the Pennsylvania State Bee-keepers' Association, paid "Swarthmore" a most glowing tribute.

The private secretary of Governor Pennypacker said he had come to the meeting for the purpose of conveying the regrets of the Governor, who was unable to attend, owing to pressure of business of state; it had not been his intention to stay more than a few minutes, but the absorbing interest of the topic had held him far beyond the usual leave, and he would certainly report to the Governor what he had heard at this meeting.

ANOTHER VISIT FROM THE DEACON'S GHOST.

Ah-h! Whew!

I thought you all never would settle down quiet like so's I could chat with yer. If you don't mind, I'll drap inter this chair and toast my back afore your h'a'th.

Yas, I enjoy things about as I uster, and this yere new smokin' is powerful good. Jest shet that door, will you? Night air is right cool. I've been a ruminatin' some more on the foreign papers. They're odd things, if you'd note 'em. The circumlocution is suthin' awful. Cir-cum-lo-cu-tion—that's the word. The scrapin' and bowin' and palavering just as how they would make a chap think he was some pumpkins, and then crack, bang, goes the club on your top.

Now, there is the Irish Bee Journal; got good stuff in it, but gol durn it, it do be all a feller's patience is wuth to read it. No wonder when poor Pat opens his mouth with his pen that he puts his foot into it a tryin' to circumlocute when he wants to fight. Must be the fault of the editors, for them boys don't have any trouble in talking clear and straight in our papers.

Just see how Hewitt and Spanswich have been a-sputtering. I reckon it would help the boys to remember that discussors should be like a pair of shears to cut what gets between, and not each other.

Next time you drap a line to the I. B. J. give 'em my respects. I opine that if the editor continues to Digge away as he has done, he'll work out the high falutin' talk and get the boys down to biz.

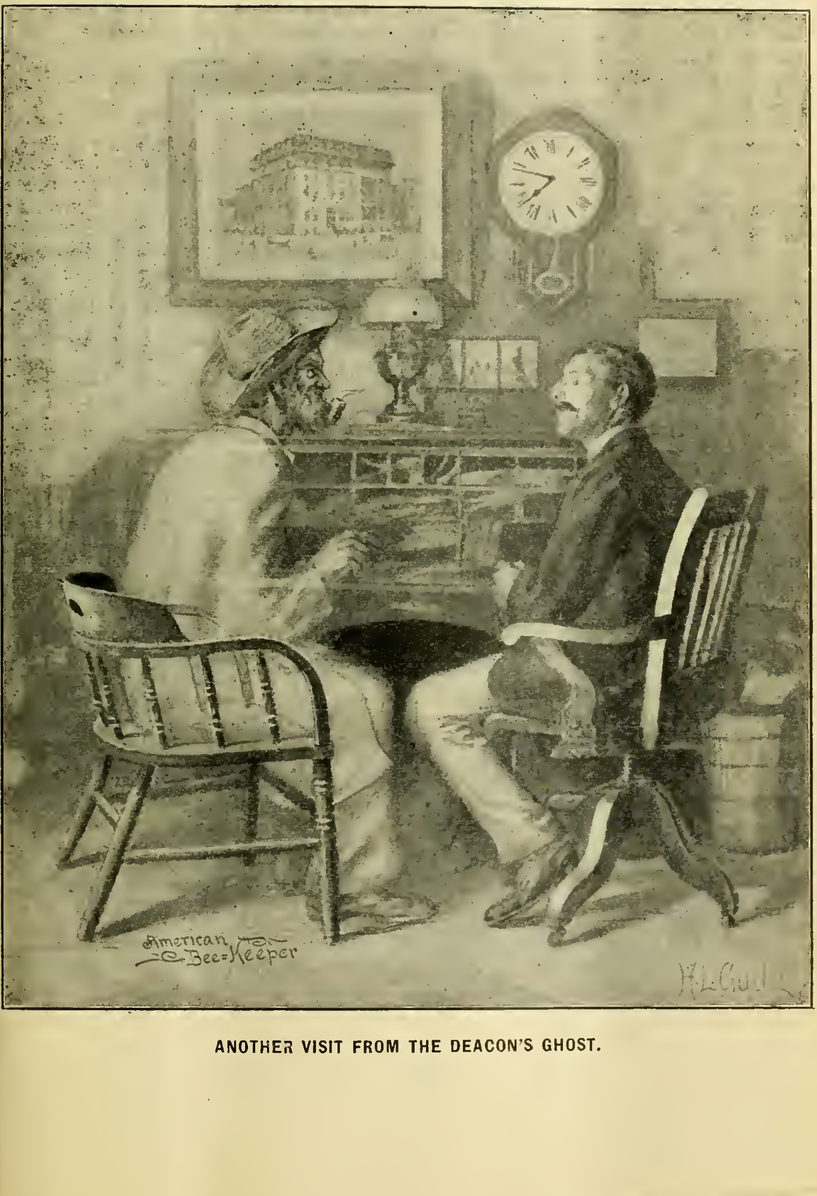
Somnambulist, of the Progressive does purty well for a peaky pusson but it 'pears to me as how he'd do well to wake up once in a spell and catch up with the world. Gets down to talking of things after we 'uns is all thro'.

Did ye ever notice what a flock o sheep you bee editors are? You shouted, "A bee paper about bees; no side shows." Then the Review hollers, "Me too." Progressive quotes it and the race is started. Reckon some of 'em will have to start some excuses or drop their fads, and I'm gwine to bet they won't do that ere, 'cause them side shows pays. Whole heap o' folks be mighty stuck on sich truck, and the more loud prayers in public places, the better it fits 'em. Birds of a feather flocks in a bunch, O ye Scribes and Parasites.

What d' ye reckon will be the next fad in bee-keepin'? It's beyond me. I think I'm a pretty middling good guesser, but I won't tackle that. But one thing I'll tell yer that yer can be sure on. It'll be a payin' biz for others than them as keeps the bees.

Sleepy, be yer? Well, I flit.

Ah-h-h-h.


American Bee-Keeper

ANOTHER VISIT FROM THE DEACON'S GHOST.

THE

Bee-Keeping World

Staff Contributors: F. GREINER and ADRIAN GETAZ.

Contributions to this Department are solicited from all quarters of the earth.

GERMANY.

"The different localities around Darnstadt," says Dickel in Ill. Bztg., "vary greatly as to furnishing forage for bees; some are exceedingly good, while others in nearest proximity are so poor that bees cannot successfully be kept without liberal feeding with sugar." He uses granulated sugar as the best and most economical substitute.

H. Mulot criticises the reports of eggs being transferred by workers which have made their appearance from time to time in different bee papers. All such reports have lacked proof, he says, and it is his opinion after long and careful watchfulness that bees do not move eggs to other combs, and that it is a physical impossibility for them to do so, and says no mortal has ever witnessed such an act.—Ill. Bztg.

Some time ago Dr. Miller, in American Bee Journal, mentioned the comb foundation with a tinfoil base sent out by Schulze, a noted German foundation manufacturer. Knack says in Ill. Bztg. that bee-keepers in Germany have not found foundation with metal base a success, but asserts that Schulze's foundation with veneer base is quickly accepted by the bees and that the queen does not hesitate to fill combs of that kind with eggs, although the so constructed combs have flat-bottom cells.

Ventilation is an essential condition to successful wintering of the honeybee. Not only should the entrances be left open (2½ x 8 ctm.), but upward ventilation through packing above should be secured. It would, however, be unwise to fill out an upper story completely with absorbent. Straw skeps that have served a long term of years are so coated with bee glue as to prevent all ventilation, and ought to be provided with upward ventilation like other hives.—Wuerth in "Die Biene."

The disposition of an unprofitable colony to store honey may be materially increased by giving them several cards of hatching brood from an industrious hive, says Wuerth.

The progress apiculture has made during the last period of years is mainly due to the movable comb, but it should not be forgotten that this great invention is, or should be, only an auxiliary for the accomplishment of certain ends. Combs should be left undisturbed except when strictly necessary. It means a loss to the bees and bee-keeper every time the latter interferes with the former's affairs. The conditions of a colony may often be correctly judged from the behavior at the entrance. "Always observe, seldom operate," should be the bee-keeper's motto. — Schleswig-Holst. Bztg.

In the same paper Gosh says that in certain parts of Germany the spruce forests have yielded immense quantities of honey the past season, enabling single colonies to store 100 pounds of honey (honey dew). The color of this honey is inclined to be green.

Five thousand worker larvae just hatched weigh one gram. When grown, eleven of them weigh two gram. They thus have increased their weight nine hundred fold inside of five days. A queen bee larva increases more than double this amount.—Schleswig-Holst. Bztg.

SIAM.

As reported in the Lahrer Missionsblatt, Siam abounds with honey and bees (apis dorsata). In America it is difficult to find bee trees, but here the huge combs are seen hanging from the limbs of large forest trees. We counted forty of such on one single tree. The native bee-hunters secure the honey by setting up bamboo poles reaching to the nests. With a lighted torch in hand they climb up, drive the bees away, and secure the honey. We bought one of the combs, which was half-moon shaped, three feet long and one foot wide. We also bought some small pieces of comb for our attendants, who were very anxious for them. These combs contained some young larvae and were greatly relished. The natives immersed them in the liquid honey and thus ate them.—Leipz. Bztg.

SWITZERLAND.

In a series of articles appearing in the Schw. Bztg., Prof. Burri makes known the results of his investigations of foul brood. He says one cell may contain many hundred million spores, which in shape are oval. In fact, the contents of a cell seem to have changed to spores and nothing else. From the summary I take the following: There are at least two distinct kinds of bacteria producing foul brood; one, bacillus alvei, the other so far unknown and difficult to cultivate, bacillus. The Professor also speaks of a third but rather rare bacillus of his discovery, which produces foul brood. As it seems, these bacilli are not yet named, but he not only describes their nature but also gives a drawing of each, showing size and shape. The bacillus alvei is the largest—quite long. The second new but common bacillus is the smallest, somewhat egg-shaped. The third but rare bacillus is shaped like the previous one, but much larger, not as long as bacillus alvei, but more bulky. The Professor also claims that pickled brood always appears associated with foul brood, never alone.

AUSTRIA.

Deutsche Imker makes the following demand on a bee hive suitable for the professional bee-keeper: "Large brood combs, accessible from the top and rear, removable supers for surplus honey." (The American hives pretty nearly meet these demands.)

L. Wolff describes a new honey secreting plant in Bienenvater; same hails from North China and South Siberia. It has spread from here and is found now in other tropical countries. The bloom does not appear till late; but plants make big growth (4 to 6 feet). Seeds sown May 13 produced blooming plants August 10. Bloom constantly covered with bees, and lasting till frost. The plant branches out somewhat like the blue thistle (Echium vulgare). The botanical name is "Leonurus Sibivicus L." (The gleaner of this will try to get the seed of this plant and test it next season, and report.)

The last speaker at the great bee-keepers' meeting held in Dornbirn was Franz Gloessl, who reported the condition of apiculture in Bosnia, the extreme southern province of Austria bordering on Turkey. He said rational bee-keeping had made advances only very recently. The movable-comb hive had been introduced by the immigrants from Germany, Hungary and Tivol. In 1899 he had organized a bee-keepers' society, which had at the end of the first year eight hundred members, mostly Turks. The society soon made an appeal to the government and succeeded in receiving material grants. For instance, no tax was to be levied on such hives as contained movable combs and removable supers. Bee-keepers were furnished lumber gratis for constructing their hives. To further bee-keeping, soldiers and policemen were taught bee-keeping, etc., and were urged to keep bees whenever possible.

TURKEY.

The Koran forbids the Turk to kill any animal not wanted for food. They therefore do not kill bees to obtain their honey, and for that reason can be easily induced to adopt movable hives and modern bee-keeping. — Bienen Vater.

OUR CORRESPONDENTS

AN OLD STRAW SKEP.

Atlantic, Iowa, Dec. 6, 1904.

Friend H. E. Hill:

You ask in the December number of The Bee-Keeper, "Where are the straw skeps?" I have one which I had my broher hunt up for me in New Jersey (my old home). It was a long hunt and no skep, and he gave it up. I wrote him where I had seen some forty-five years ago. He went to that place and one was found in one of those large old stone houses that are so common in that part of New Jersey. The lady presented it to him to send to me, remembering me when a small boy. She is now about ninety years of age, her father dying thirty or thirty-five years ago, at about her age at the present time. She says it was in use when she was a small girl. So you can figure its age as well as I can. I have had it in use for the last six years. It sends out strong swarms every year and there seems to be no spring dwindling in it. I keep it in my yard in town, and it is a great curiosity to the people that pass by. I don't know of any skeps in Iowa, except this one.

John Dufford.

CAN HARDLY WAIT.

Upperco, Md., Dec. 9, 1904.

Editor Bee-Keeper:

I am very much interested in The Bee-Keeper. I can hardly wait till the time comes for it. I cared for ten colonies through the winter of 1903-4, and about half came out last spring very weak; in fact, they went into the winter rather weak. One hive especially did not have over a quart of bees. In January the queen died. I nursed them along as best I could till spring. April 1st I sent to J. B. Case, one of your advertisers, and got a five-banded Italian queen, and introduced her, and they did very well.

From my ten colonies last summer I received 700 pounds of fine honey, nearly all white clover. I will mak about $90 out of that, besides wha we use ourselves. My best colon made 120 pounds of fine honey Please extend my subscription fo 1905 to The American Bee-Keeper A merry Christmas to you all.

D. H. Zencker.

THE SEASON IN MISSOURI.

Cecil, Mo., Dec. 8, 1904.

Editor Bee-Keeper:

The past season has been favorabl for the production of fall honey though too wet for a full crop fror white clover. The sale of honey ha been somewhat slow, at 10 to 12 cents per pound for nice section Broken comb and extracted brin eight to ten cents. Dull markets ar our greatest drawback, as this se tion of the state is well adapted to th successful production of hone White clover, smartweed and Spanis needle are the most ordinary of th sources which contribute to the su ply. It is but a few years since th abolition of the box hive with us, an now nearly everyone has installed th movable-frame style and adopted th square section. I now have fifty co onies in good condition.

John Ware.

DOWN WITH SUGAR FEEDIN

Buffalo, N. Y., Dec. 6, 1904.

Friend Hill: I have just finishe reading A. C. Miller's article in th December American Bee-Keeper.

Truly he has hit the keynote ar I hope it will have influence to stc the practice of feeding sugar syru to our bees. Every bee-keeper shou read it several times. I wish h would do so some more.

Another baneful practice is that extracting nectar before it is ripe ed by the bees. I find it hurts ou business more than I can tell. Th Buffalo grocery and commissio houses are full of this stuff calle honey. An honest bee-keeper cann compete with these brazen, audaciou frauds. No language is too stron to condemn the practice of feedin sugar syrup and extracting before th bees seal their honey. It is the rui ation of our trade. I have no syn pathy for these fellows.

J. W. Tefft.

THE AMERICAN BEE-KEEPER

PUBLISHED MONTHLY.
THE W. T. FALCONER MANFG. Co.
PROPRIETORS.
H. E. HILL, - EDITOR,
FORT PIERCE, FLA

Terms.

Fifty cents a year in advance; 2 copies 85 cents; 3 copies $1.20; all to be sent to one postoffice.

Postage prepaid in the United States and Canada; 10 cents extra to all countries in the postal union, and 20 cents extra to all other countries.

Advertising Rates.

Fifteen cents per line, 9 words; $2.00 per inch. Five per cent. discount for two insertions; seven per cent. for three insertions; twenty per cent. for twelve insertions.

Advertisements must be received on or before the 15th of each month to insure insertion in the month following.

Matters relating in any way to business should invariably be addressed to

THE AMERICAN BEE-KEEPER,
Falconer, N. Y.

Articles for publication or letters exclu- for the editorial department may be addressed to

H. E. HILL,
Fort Pierce, Fla.

Subscribers receiving their paper in blue wrapper will know that their subscription expires with this number. We hope that you will not delay favoring us with a renewal.

A red wrapper on your paper indicates that you owe for your subscription. Please give the matter your earliest attention.

Editorial

It is said that Illinois has 35,000 bee-keepers. Some of them are good ones, too.

"Tincture of virus" is the word used by chemists to designate bee poison which is used in medicine. The fellow to whom a dose is administered in the end of the nose by a bee itself, usually has another name for it.

According to Gleanings, there are 300,000 Russians keeping bees. It is gratifying to know tnat they can keep something—they won't keep peace.

W. K. Morrison, in Gleanings, says: "There are some ideal locations for bees in the Bahamas, but life on a coral reef is awfully lonely." Parisian social conditions and desirable honey localities are rarely found keeping company.

The Root people have been experimenting with a device for extracting wax by centrifugal force. It seems the affair was not quite all that could be desired. It will probably be a long time before a better method than pressure under steam is discovered.

The general manager's annual report of the affairs of the National Bee-Keepers' Association makes a most creditable showing for the organization. Mr. France is the right man in the right place, if one may base his verdict upon the evidence presented through the report; and we know of no better evidence.

Dr. W. H. Ashmead, of the United States National Museum, recommends a change in the generic name of Apis dorsata to Megapis dorsata. If the doctor will prevail on our Uncle Samuel to go fetch enough of these giant East Indian bees to America to make a thorough test of their merits on American soil, we'll agree to call them Megapis, or even Nutmegapis.

A quantity of matter recently submitted for publication, is found unavailable on account of its extreme length. One, in fact, is too long for McClure's. It is not space-fillers that we require. We always need short, wholesome and pointed articles on bee-keeping subjects. The least of our trouble is space-filling. We pay cash for good articles that meet these requirements.

The Chicago-Northwestern convention, recently held at Chicago, fully sustained its well known reputation for "howling successes." If they do nothing else, the Chicago-Northwestern people always unite in proclaiming each successive convention a glorious success. Well, success, they say, is the thing that succeeds. No wonder it is such a successful organization.

One of our Northern subscribers, when sending in his renewal, sends also the subscription of a neighbor bee-keeper, and says: "I will do all I can to help you double your subscription list this year." Many thanks! If each one had done the same, the list would have been doubled before the new year had started. Just one new subscriber from each, means nearly three thousand new ones. With such a list, The Bee-Keeper could introduce lots of improvements.

Every home that shelters an American boy should receive the American Boy, the great boy's paper of America. Good, wholesome and interesting reading for boys is not so plentiful as it should be. The American Boy is a large, high-class monthly that will interest, instruct and inspire your boy. We have arranged with the publishers to supply this great boy's magazine to our readers, if taken in connection with The American Bee-Keeper, a whole year for eighty-five cents. That is, if you will send to us, at Falconer, N. Y., 85 cents, we will send you both the American Boy and The American Bee-Keeper for a year. If you are paid in advance, we will extend your subscription to The Bee-Keeper twelve months and send the American Boy a whole year, beginning with the next number following receipt of your order.

"The National Association should devote more of its money and energies to advertising honey, prosecuting adulterators and killing damaging stories." The foregoing is the caption used over an excellent editorial in the Bee-Keepers' Review, wherein the importance of using a portion of the National's funds with a view to extending consumption of honey, instead of lavishing the major portion upon the settlement of neighborhood squabbles is set forth.

Notwithstanding the real seriousness of the situation and the urgent demand for more active operations along the lines designated by Editor Hutchinson, the reference to that "killing of damaging stories" has rather a humorous side—when viewed from the standpoint of the St. Louis convention. For a few days last September, St. Louis was a veritable hotbed of wide-eyed bee-men; most of the princes of the profession being there assembled in convention. The heavy-weights of the apiarian arena were about all in the ring, at St. Louis. Even the big chief himself, surrounded by about two hundred armed warriors of the apiarian tribe, trod the streets of St. Louis. Not only were the wise men from the East there, but also those of the several other quarters of the earth. They were there in person—not by proxy, nor by mail, nor by telegraph. They pooled their aggregated wisdom and sought to rectify one erroneous newspaper statement of the order "Damaging." They seem to have met utter failure, however; for it appears that the statement was made actually worse than before; and if it is being copied yet, on the plan of the Wiley story, it is probably more damaging in its paraphrased form than it was originally.

The problem which now looms up before us is: If all the big guns in beedom, personally assembled, cannot contrive to correct one damaging newspaper statement, how should our general manager proceed in such cases with a prospect of earning his salary!

A BEE-KEEPERS' INSTITUTE.

A bee-keepers' institute will be held at Canandaigua, N. Y., Jan. 9 and 10, 1905. General Manager France of the National Association, has been engaged as a speaker for the occasion. Business pertaining to the Ontario County Bee-Keepers' Association will be transacted also. There are to be four sessions.

WHAT DO YOU THINK?

A West Indian subscriber compliments The Bee-Keeper upon its selection of matter for publication. Says he "does not believe in long-winded articles," and that it is better to get immediately down to the point.

Another New York subscriber likes The Bee-Keeper better than any other bee journal because it seeks to take care of the beginner, and says things in language that a novice can understand.

We welcome these comments and invite free criticism from all our readers. Their suggestions always have careful attention, because we desire to make The Bee-Keeper of interest to the greatest possible number.

RECEIVES GOVERNMENT APPOINTMENT.

In the October number (page 214) reference was made to the first United States Civil Service examination in apiculture, and a list of the subjects was given, with their relative weights. In the examination seven states were represented by a total of twelve applicants. Of these Miss Jessie E. Marks, of New York, passed with the highest average, and has received the appointment, which carries a salary of $720 per annum.

Miss Marks is a daughter of Mr. W. F. Marks, of Clifton Springs, New York, well known for his work in the organization of the New York bee-keepers into county societies, affiliated with a strong State organization. His able work as Chairman of the Board of Directors of the National Bee-Keepers' Association is also well recognized. Miss Marks has had charge of her father's correspondence for some years, and has also rendered assistance in their home apiary, so that she will not be wholly unfamiliar with the duties of her new position. She has already reported for duty at the Department of Agriculture, Washington, D. C.

THE NEW "A B C OF BEE CULTURE."

The new and revised edition of "A B C of Bee Culture," bearing date of 1905, has just been issued from the press of the publishers, The A. I. Root Company, Medina, Ohio. In its somewhat enlarged and thoroughly revised form, the "A B C" is a marvelous compilation of apiarian knowledge, which no student of apiculture can afford to overlook. Its title is, obviously, a misnomer, and one which is misleading; for instead of being a bee-keepers' primer, as implied by its name, it is a cyclopedia of scientific and practical apiculture, containing nearly five hundred splendidly illustrated pages.

One hundred thousand copies of this book have been issued, which would entitle it to the claim of being the most popular work on bee-keeping in the world. A more appropriate name would doubtless result in even much wider sale.

Editions in French and also in Spanish are now in course of preparation. An exquisite edition de luxe, full leather and embossed in gold, at $2.00 a volume, will soon be issued. Another binding, half leather, will be on sale at $1.75; while the cloth, as formerly, will be $1.20.

"MAY BE."

"May be" the reader knows of one, two or three bee-keepers who are not taking The Bee-Keeper.

"May be" they would be glad to join our circle for 1905 if they knew the paper and were asked to "come in."

"May be" if they knew that $1 would pay for a three-year subscription they would at once avail themselves of the offer.

"May be" you would not mind calling their attention to the fact that this is our fourteenth birthday, and that we print each month a greater quantity of bee-keeping matter than any other monthly bee paper in America; and that our contributors represent the brightest and most successful bee-keepers in all parts of the world.

"May be" you do not appreciate the extent of the service you would be rendering your bee-keeping acquaintances, The American Bee-Keeper and yourself; for we should all profit handsomely by such a course.

"May be" you will kindly keep this in mind and lend a helping hand, as suggested, when the opportunity is offered.

We thank you in advance for your good intentions, which are anticipated. We thank you sincerely. No "May bes" about it.

The Jefferson County Bee-Keepers' Society and New York State Association will hold their meeting in the city hall, Watertown, N. Y., January 17th and 18th. General Manager N. E. France, of the National Association, and other prominent bee-keepers are expected to speak. Geo. B. Howe, Sec.

HONEY AND BEESWAX MARKET.

Kansas City, Mo., Dec. 9.—Supply of honey is large, with fair demand. We look for a better market after Christmas. We quote our market today: Comb, $2.25; amber, $2.00; extracted, 6½c. Beeswax, 30c.

C. C. Clemons & Co.

New York, Dec. 10.—The supply of all grades of honey is plentiful. The demand is rather slack. We quote today: Comb, 10 to 15c. Extracted, 6½c. Beeswax, 29c.

Hildreth & Segelgen.

Chicago, Dec. 7.—The market is well supplied with all kinds of honey. Demand is light. Fancy comb brings 14c., but quality as well as appearance is necessary. No. 1 sells at 12½ to 13c. Off grades difficult to move at 1 to 3c. less. Extracted, choice white, 7 to 7½c.; amber, 6 to 7c., with off grades about 5½c. per pound. Beeswax, 30c.

R. A. Burnett & Co.
199 So Water St.

Boston, Nov., 19.—Recent heavy arrivals, together with very low quotations from some other markets, have had a tendency to weaken our market. We quote: Fancy No. 1, 15c.; No. 2, 14c.; with ample stock. Absolutely no call for buckwheat. Extracted honey, 6 to 8c.

Blake, Scott & Lee Co.

Cincinnati, Dec. 10.—The demand for honey at present is not good, owing to the approach of the holidays, when too many sweets are found on the market. On the other hand, the trade is well supplied with comb honey, that will require a length of time to be consumed. Are offering extracted white clover honey, in barrels and cans, at 6½ to 8½c. Amber, 5 3-4 to 6½c. Fancy comb honey, 12½ to 14c. Beeswax, 29 and 30c.

The Fred W. Muth Co.
51 Walnut St.

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The Biggest, Brightest, Best Boys' Magazine in the World.

BOYS LIKE IT BECAUSE IT TREATS of everything Boys are Interested in and in the Way that Interests Them.

PARENTS LIKE IT

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YOUR BOY WILL LIKE "THE AMERICAN BOY"

and you will like him to have it, for it is interesting, instructive, and educative. Authorities pronounce it the ideal boys' magazine. It has been a tremendous success, gaining nearly 125,000 subscriptions in four years, and the parents of our subscribers say it deserves a million more. As one parent writes:

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No publication for young people is paying so much money for high-class literary matter for its readers as is "THE AMERICAN BOY."

IT IS PUBLISHING

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Subscription Price of "The American Boy" (1 Year) - - - - - $1.00
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Both for Only - - - - - .85

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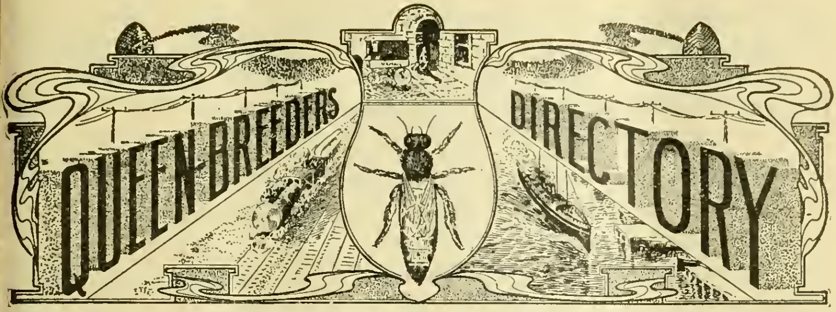

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QUEENS from Jamaica any day in the year. Untested, 66c.; tested, $1.00; select tested, 1.50. Our queens are reared from the very inest strains. Geo. W. Phillips, Sav-La-Mar P. O., Jamaica, W. I. (5-5)

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JOHN M. DAVIS, SPRING HILL, TENN., has greatly enlarged and improved his queen-rearing facilities. Two unrelated Carniolans and a dark leather Italian lately imported. My own strains of three-band and golden; "Moore's" long-tongue; Doolittle's golden; all selects. Carniolans mated to Italian drones when desired. No disease. Circular free.

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ARE YOU LOOKING FOR QUEENS? If so I can furnish you queens of the followinging races by return mail: Three- and five-banded Italians, Cyprians, Holy Lands, Carniolans and Albinos. Untested of either race, 75c. each; select untested, $1.00 each; six for $4.00; twelve for $8.00; tested, of either race, $2.00 each; six for 10.00; one dozen, $18.00; Breeders, $4.50 each. Safe arrival guaranteed. B. H. Stanley, Beeville, Texas. Aug. 5

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MOORE'S LONG-TONGUED STRAIN of Italians become more and more popular each year. Those who have tested them know why. Descriptive circular free to all. Write J. P. Moore, L. Box 1, Morgan, Ky. 4

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HONEY QUEENS AND BEES for sale. I extracted 300 pounds per colony in 1903. Thos. Worthington, Leota, Miss. Aug. 5

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"INCREASE" is the title of a little booklet by Swarthmore; tells how to make up winter losses without much labor and without breaking up full colonies; entirely new plan. 25 cents. Prospectus free. Address E. L. Pratt, Swarthmore, Pa. 7-tf

A TANDEM BICYCLE (for man and lady) cost $150, in first-class condition, was built to order for the owner. Tires new. Will sell for $25 cash. Satisfaction guaranteed. Address J. Clayborne Merrill, 130 Lakeview, ave., Jamestown, N. Y.

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Modern Farmer, one year,	$ .50
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Gleanings in Bee Culture, one year, - - -	1.00
Langstroth on Honey Bee,	1.20
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	$4.20

All of the Above only $2.50

First two $.50; first three, $1.25; fir four, $2.10.

New subscribers for the A. B. J. c subst tute it for Gleanings if they wis Renewals for the A. B J add 40c mo to any club. Western Bee Journal c be substituted for either bee paper. changes will be made in these offers.
Write for other clubbing offers.

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I have three-banded Italians, Goldens, Cyprians, Carniolans, Holy Lands and Albinos. Untested of either race, 75 cents each. Tested, $1.50 each. Breeders, $3.00. Contracts made for large orders. Two-framed nuclei a specialty.

B. H. STANLEY, BEEVILLE, TEXAS.

1-5tf

The Bee-Keepers' Review

can help you

MAKE MONEY

Opportunities for making money out of bee-keeping were never greater. If the bee-keeper with a single apiary, from which he makes a living in a good year, and nothing in a poor year, would only arouse himself to the

Changed Conditions

secure a good location, if not already in possession of one, adopt such methods as will enable him to branch out and manage several apiaries, he will find that in a good year he can

Pile up Honey

ton upon ton—enough to support himself and family for several years. The Review is helping bee-keepers to accomplish this very thing.

The First Step

in making money as a bee-keeper is the securing of a good location; and the Review even goes so far as to discover and make known desirable, unoccupied locations.

Get Good Stock

Having secured the location, the next step is that of stocking it with bees of the most desirable strain; and, having had years of experience with all the leading varieties of bees, the editor of the Review is able to, and does, tell his readers where to get the best stock. Still further, the Review tells how to make

Rapid Increase,

how to build up ten or a dozen colonies, in a single season, into an apiary of 100 or more colonies.

Having the location and the bees, the bee-keeper must learn how to manage them so as to be able to establish an out-apiary here, and another there, and care for them with weekly visits—yes, by monthly, or even longer, visits, when extracted honey is produced. It is in teaching bee-keepers how to thus

Control Swarming,

that the Review has been, and is still, doing its best work. If a man only knows how, he can care for several apiaries now as easily as he once cared for only one.

Having secured a crop of honey, the next step is that of selling it. This is the most neglected, yet

The Most Important Problem

of succesful, money-making bee-keeping, and one that the Review is working the hardest to solve. So many men work hard all summer, produce a good crop, and then almost give it away. The Review is trying to put a stop to this "giving it away." It is showing, by the actual experience of enterprising bee-keepers, how the leisure months may be employed in selling honey at prices that some of us would call exorbitant. The men who have done this tell how they did it.

The editor of the Review has a wide, actual, personal acquaintance with all of the

Leading Bee-keepers

from Maine to California, and is thus able to secure, as correspondents, men who have scattered out-apiaries widely, managed them with little or no help and made money. These men are able to write from actual experience—they know how they have succeeded, and can tell others.

One thing is certain, if you are a bee-keeping specialist, or expect to become one, if bee-keeping is your business, you can't afford not to

Read The Review.

It will lead you and encourage you, and fill you with ideas, and tell you how to do things—show you how to enlarge your business and make money.

The Review is published monthly at $1.00 a year; but, if you wish to become better acquainted with it before subscribing,

Send Ten Cents

for three late, but different issues, and the ten cents may apply on any subscription sent in during the year. A coupon will be sent entitling you to the Review one year for only 90 cents.

W. Z. HUTCHINSON

10-tf

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Preparation For Winter,

And the wintering problem, are the subjects under discussion in the Current Numbers of THE RURAL BEE KEEPER.

Big Discount on early orders, write for sample copies, and send 10c for 3 late numbers.

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Organized to protect and promote the interests of its members.

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We will keep an accurate record of the number of subscribers we secure out of each list and the persons from whose lists we secure the greatest number subsribers by March 15, 1905, will receive above prizes. In case three or more lists produce equal results we reserve the right to divide the fifty dollars equally between them.

Remember—Send just ten names from one P. O. Do not send names of children or people not interested in farming. We give away the $50.00 in order to get select lists and you cannot get your share of it unless you chose the names carefully.

The "Agricultural Epitomist" is the only agricultural paper edited and printed on a farm. Our six hundred and fifty acres are devoted to practical agriculture and fine stock and we are offering hundreds of thoroughbred pigs and fancy poultry as premiums for subscription work. A pig or a trio of poultry easy to get under our plan. Write for particulars.

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How we make our hens pay 400 per cent. profit, new system, our own method, fully explained in our Illustrated Poultry Book, which contains Poultry Keepers' Acc't and Egg Record showing gains or losses every month for one year. Worth 25 cts, sent to you for 10c. if you will send names of 5 poultry keepers with your order: Address, G. S. VIBBERT, P.B. 56, Clintonville, Conn.

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HOME STUDY MAGAZINE

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If you have some to offer, mail sample with lowest price expected, delivered Cincinnati.

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State quantity and kind wanted, and I will quote you price. I do business on the cash basis, in selling or buying

Full Stock of Bee-Supplies, the best made. Root's Goods at their factory prices.
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DON'T KILL YOURSELF, WASHING THE OLD WAY, BUT BUY AN EMPIRE WASHER, *with which the frailest woman can do an ordinary washing in one hour, without wetting her hands. Sample at wholesale price.* Satisfaction Guaranteed. *No pay until tried. Write for Illustrated Catalogue and prices of Wringers, Ironing Tables, Clothes Reels, Drying Bars, Wagon Jacks, &c.* Agents Wanted. Liberal Terms. Quick Sales! Little Work!! Big Pay!!! *Address,* THE EMPIRE WASHER Co., Jamestown, N.Y.

When writing to advertisers mention The American Bee-Keeper.

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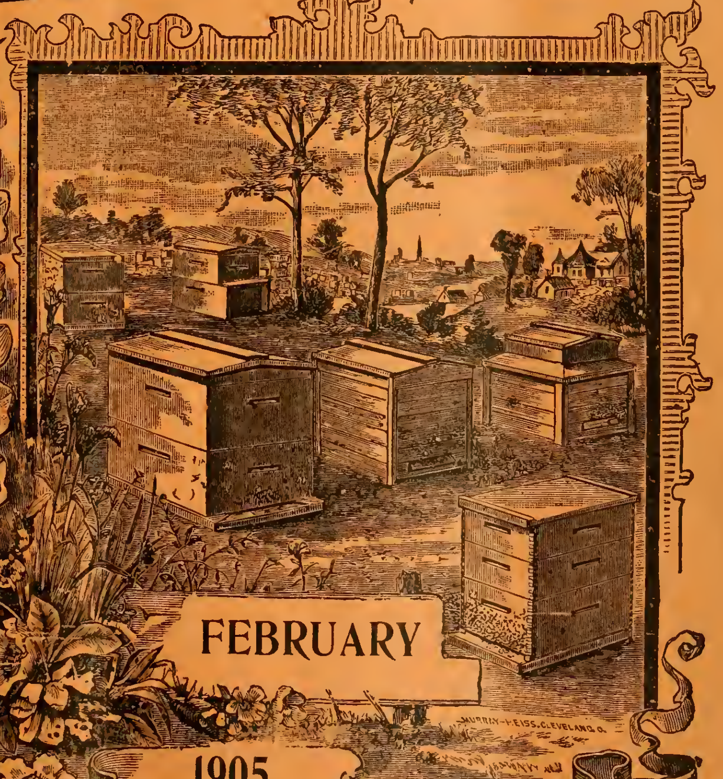
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VOL. XV 1905 NO. 2

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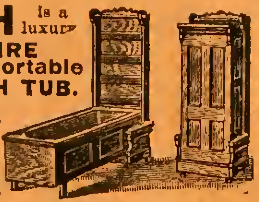

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THE AMERICAN BEE-KEEPER

Vol. XV FEBRUARY, 1905. No. 2

APICULTURE FOR WOMEN.

A System of Education Proposed.

By J. W. Tefft.

THE establishment of agricultural and apicultural schools would open up a new field for women of activity to which too little attention has been paid. Down to the resent time the majority of attempts n this department have been made or the boys, but it is peculiarly fitting hat we should endeavor to find out ust what may be done to ameliorate he economic condition of women of he industrial classes, and that in a ractical manner which shall increase he health as well as increase the in- ome.

Since men have deserted the land nd have monopolized many of the rades, why should not women re- urn to the land and cultivate small, uits, poultry and bees? I do not esire to make laborers of women, ut rather train intelligent cultiva- rs of bees, who will become pro- ucers of the first order.

England, ever since 1871, has had er feminine colleges of horticulture, griculture and apiculture, which fur- sh gardeners, horticulturists, and iarists for great properties. Ger- any, on her side, has a female agri- ltural school; Austria has fifty-sev- garden schools in the suburbs of Vi- na and 1,200 in lower Austria, while ssia has founded two agricultural hools for women which are under e protection of the empress and oth- great court ladies.

When one thinks of the matter he becomes convinced that there is no occupation which could hold women by stronger ties than that of rural life. Therefore, we should proceed to teach our women horticulture and agriculture, the dressing of gardens, cutting and trimming of trees, shrubs, etc. Apiculture is peculiarly adapted to women, which can be made remunerative and a delightful occupation.

If we are told that the physical qualities of woman unfit her for rural life, we reply that the unhappy seamstress, bent double over her work from morn until night, expends a much greater amount of energy than she would in apiculture.

Each bee-keeping woman is bound to make the little circle in which she lives better and happier. Each one is bound to see that out of that small circle the widest good will come. Each one may have fixed in mind a thought that out of a single apicultural household may flow influences that shall stimulate the whole apicultural world.

The mere study of bees and bee-keeping is wonderful. To study their comb-building, their habits, their requirements, their importance to man. To study the pollen they gather, and how they fertilize the flowers, the swiftness of flight, the high instincts in the construction of their nests, in their care for their young and in the division of labor in the colony. It explains the scarcity of seeds in first crops of red clover, and gives the reason why the second crop yields honey and seeds.

The life history of the honey bee is a grand study for woman as well as man.

South Wales, N. Y., Dec. 17, 1904.

THE LIMIT IN BEE CULTURE FOR PROFIT.

By Bessie L. Putnam.

WHATEVER the professional apiarist may find profitable, the common farmer who keeps but a few swarms for family use finds that there is a limit beyond which he may not venture with impunity. It is this way in all branches of agriculture. When the chickens and other fowls can pick through the day, growing nicely on two or three supplementary meals, it is quite a different matter from the problem of furnishing them the entire ration three times a day. The small farmer may find twenty to fifty sheep money gatherers; but let the flock increase to double this number and they nibble so close that the pasturage becomes impoverished.

Bees, like poultry, belong largely to the farmer. He wishes to have an abundance of the sweets for his table, and if in bounteous years there should be some surplus it is that much extra to be exchanged for other things. If in an extreme season of honey scarcity he finds it necessary to feed weak swarms, he does not, as a rule, expect to bestow upon them the time given by the apiarist.

Such a man depends upon the fruit, clover, basswood and buckwheat in turn to keep the bees at work. This is in the North; other localities may vary in the nature of the supply, but the plan holds equally good. We will suppose him to be the only one in the neighborhood who keeps bees. They glean from near fields until the supply is exhausted. Gradually the radius of flight lengthens, the time required for the extra flight decreasing the amount of sweets stored as well as unnecessarily fatiguing the little workers.

As the search becomes more thorough, competition between swarms of the same owner increases. It is apparent that there must be a line of demarkation, on one side of which may be written "Profit;" on the other "Loss."

This is where the pasturage is at its best, where the bees are storing away for the future. But in the majority of seasons there are plenty of side crops, found perhaps in too small quantities to be reckoned in the regular honey crop, yet which aid materially in piecing out the sustenance of the bees and permitting them to save the stores garnered for a time of need. Yet if the neighborhood is stocked to the utmost capacity, or one man has a large collection, this reserve fund is consumed in almost no time and the bees must then go miles for their daily food or live upon what should have been saved fo winter.

The larger the supply of natura food per swarm, the higher the ne profit. The location of the line be tween profit and loss varies with th season. Its mean position everyon must locate for himself.

Conneaut Lake, Pa.

THE USE OF THE EXTRACTOR

Recounting Its Various Advantages Etc.

(Paper read before the Hamilto County, Ohio, Bee-Keepers' Convention, by Mr. Richard Curry.)

BROTHER BEE-KEEPERS AN GENTLEMEN:—At our regular monthly meeting held in th early part of October a few remark I made in opposition to a suggestio or motion to petition the managemen of the Hamilton County Agricultur Association to increase their cash pr miums for honey exhibits at the annual fall fair, provoked and brough on a discussion as to which is th more profitable to the bee-keeper, th production of comb or extracted honey. My defense of the latter I hop to give in a very few words.

In early spring, if you find too muc old honey in your hives, and consequently your queens cramped f room to deposit their eggs, you ca use your extractor to advantage, an thus give the desired room and the same time put a stop to any inclination to swarm, as in all my experience I have never had a swarm any time when the queen has bee supplied with plenty of empty comb in the brood nest; and for that reason you are sure of having very strong colonies when your honey harvest commences in earnest, and the shorter the season the greater will be the difference in the returns. I have frequently seen seasons when hives operated for extracted paid a fair interest when your comb honey colonies would fail completely.

One season our apiary of twenty-six colonies averaged two hundred pounds to the hive. Out of the twenty-six colonies, three failed completely, as their queens, in spite of all the stimulating we could do, turned out worthless, and before they could be replaced the season was over. To counterbalance that side, we had one colony we felt sure gave us nearly if not quite four hundred pounds.

We have found trouble in getting Italians to go up into the boxes. They are much more reluctant to do so than the old black bee, but in working for extracted, it is so easy to raise a brood comb up into the second story and the problem is solved. How many imes you will find instead of working n boxes the brood chamber will be ound full of honey instead of brood, nd very often forcing off a swarm. am reminded of an incident that appened some years ago. A gentleman who owned several colonies invitd me over the river to visit him and ncidentally look at his bees. Upon pening them, we found them in about he condition we speak of, that is, ives full of honey, but very little rood. I explained the trouble and hen he asked me what I would adise him to do, I simply pleaded igorance. I said, "If they were mine would extract some of the combs, ut you have no extractor." He wantd to know if he removed some of e combs, if the bees would not build ew comb. I thought not, and if they d it would probably be drone comb, ut even if they did that would do no ood. I advised him to buy a cheap tractor as the only way out that I uld see, but I am not quite sure but thought I was a drummer for some pply house. In consequence, they ent into winter quarters few in numrs, and I was told they all died bere the winter was half over, from me unknown cause, as the hives were full of honey. How often we have heard that same story.

One objection advanced against extracted honey is the trouble of disposing of such great quantities. Well, it is easier to dispose of fifty or even a hundred pounds of comb honey than it is four or five hundred of extracted.

But when we had our honey crop nicely put away in half-barrels, coated inside with beeswax, we found the disposal of it in a great measure a matter of education. In the first place, we had a neat circular nicely worded, illustrated with suitable wood cuts, explaining the modern process of extracting honey and giving the names of a few of our prominent citizens who had witnessed the process, together with a cordial invitation to all those interested to call and see for themselves. This we found always a drawing card.

Now as to the charge or assertion that extracted has to be sold at a very low price: We find no trouble in getting fifteen cents per pound for small quantities, and within a few days I have had comb honey, as clear and white as I have ever seen, in small frames, sell at eighteen cents. Too cheap, you will say, and so say I. It is worth more—much more, in proportion, for while your little workers have been making the comb and depositing that pound, they would have given you, at a very low estimate, from three to five times that much extracted. Do your own figuring. Now, in conclusion, I will say candidly, for myself I would not know how to keep bees without an extractor of some kind, and I feel sure that those of us who work for comb honey and have used an extractor in connection with the other will bear me out in this. Not wishing to monopolize all our time, and thanking you for your kind attention, I will step aside.

AMERICAN APICULTURE.

Present Conditions and Future Prospects Analyzed.

By J. E. Johnson.

THE EDITOR of the Bee-Keepers' Review has often urged me to "keep more bees." The advice seems good, and I have acted upon it to the extent of increasing my number of colonies over five hundred fold in the last two years.

Notwithstanding this great increase, last year my crop of honey was 250 pounds of comb and extracted, and this year 64½ pounds per colony, spring count.

Now, by making specialty of bee-keeping, and continuing to increase my colonies as fast as possible, and thus branch out by starting out apiaries, etc., I should be able, ere long, to possess one thousand or more colonies. If my crops should be fairly good and I should be able to dispose of all my honey at the same price that I am getting at present, great wealth would soon be mine, and my knocking at the door of prosperity would cease. However, no doubt if one thousand colonies proved a success, that success would only whet my appetite for keeping still more bees.

But in the meantime an enemy has been sowing tares in our wheat, as it were. The story of manufactured comb honey has gone the rounds of the press at a greatly increased rate, and we find that even fancy white comb honey is an actual glut on the market, notwithstanding the honey crop is light this year; and such great honey-producing states as California have had an almost entire failure. On page 22 of The American Bee-Keeper, January 1st, I find the following market quotation from Kansas City:

"Comb honey, $2.25 per case. Amber, $2 per case."

Last year I sent ten cases of comb honey to the Kansas City market, for which I received $3 per case, less deductions as follows: Carriage and cartage, 29 cents; commission, 30 cents. This left me $2.41 per case. Now, fellow bee-keepers, can I sell my best comb honey for $2.25, after you deduct as follows:

Say for freight and cartage	20 cts.
Say for commission	22 cts.
Say for cost of case complete	20 cts.
Say for cost of sections	12 cts.
Say for foundation	5 cts.
Total	79 cts.

$2.25 — .79 = $1.46.

What do you think of $1.46 per twenty-four-pound case of best honey? Nos. 2 and 3 somewhere between that and nothing, and counting nothing for your work, cost of hive and other expenses. What has brought about such a state of affairs? And what is the remedy? The remedy should be administered in very liberal doses until a reaction takes place.

I have taken the Kansas City quotations merely as an example, because I sold honey through this firm last year and found them not only honest, but they quoted prices correctly.

The Boston quotations are higher for fancy, but say absolutely no call for buckwheat. Rather tough on the bee-keeper with a large crop of buckwheat honey on hand. And still we are advised to keep more bees so as to pile up ton upon ton of honey.

At the St. Louis convention a paper was read by the secretary pro tem., in which he stated that large consumers of honey, those that use fifty carloads and upwards per annum, have united their energies with the buyers and commission brokers, and as a result we are left to take what they are pleased to offer us for our honey. Or, in other words, several of our best and most enthusiastic members in the National were openly and publicly charged with being in league with the large honey consumers, and as a result we are being robbed of our just profits. Considering that such men as Mr. Geo. W. York, E. T. Abbott, Fred Muth, C. H. W. Weber and other men of unquestionable reputation are large honey buyers and commission brokers, and were present, this statement caused some surprise. These men declared that they knew nothing of any such combine. The reader of the article said he could put his finger on the people who were in this great combine, and could tell exactly who they were, but thought it not well to give it out in public; so the accusation is still unexplained, and we are left to form our own opinion as to whether the accuser could prove his accusations true. However, a new association or stock company was bron that day, with stock at $100 per share, par value. This is practically a specialists' association and was formed for their benefit. I have heard suggested that this association is to be somewhat on the order of the citrus fruit association, and is for the purpose of lowering transportation and commission charges. It has been said that the California Citrus Fruit Exchange has brought about a condition of affairs which enables the consumer to buy oranges in St. Louis or Chicago for the same price at which they are sold in California. That is a good thing for the consumer in St. Louis or Chicago, and no doubt a good thing for the producer in California, but here is how this honey business differs:

Only a small portion of the United States produces oranges, and any arrangement to lessen the freight so as to sell the goods cheaper at a distant market and still get more clear money out of the goods is a good arrangement; and the California people boast of the fact that the California Citrus Fruit Exchange was the means of driving foreign oranges out of the New York market. Why was that? Simply because by economy and advantages obtained by the organization they could undersell them. But honey is produced in all parts of this country, and although California and Texas have, to a great extent, supplied the different markets of the United States, the bee industry is still developing very rapidly in those states, and the specialist with his many colonies can make money selling his honey for from five to ten cents per pound. With them it only remains that they be well organized, so that all their honey finds a market where it will bring the cash, and by hipping in carload lots and saving both freight and commission, they can, without any trouble, undersell he ordinary bee-keeper with his one hundred or two hundred colonies. The western states and Texas have still much unoccupied territory which, in he near future, will contain thousands f colonies of bees. The bee-keepers n those parts are largely specialists, who are increasing their stock, and here is no gainsaying the fact that he output of honey is gaining more apidly than is the consumption.

Williamsfield, Ill., Jan. 11, 1905.

SWARMING AND WINTERING RESULTS.

By L. M. Gulden.

PROBABLY nine-tenths of the winter losses among small bee-keepers, and possibly also mong the larger apiarists, may be rectly traced to excessive swarmg.

Swarming may be excessive for one locality or season and only moderate for another. The degree is largely in proportion to the natural honey resources of the region and the flow during the particular season under consideration. We have known small yards where the natural increase was three-fold, and still a good honey crop was harvested, and all had sufficient left for winter. In other seasons one swarm per colony would reduce the old colony in stores to such an extent that they would succumb to starvation before spring, and the swarm being in the same, or more generally poorer, condition, would also die of starvation. This is speaking of small yards, where little is known by the apiarist of the amount of stores really required for winter and no thought is given to feeding.

Bee-keepers of this class generally scorn the idea of feeding bees for winter. It is thought that natural instinct would prompt the bees to provide a sufficiency for winter in the brood chamber. To disabuse these people of this erroneous idea is a difficult task and requires much reasoning and argumentation.

To those who should chance to read this article, let me say: Don't let your bees starve, even though they have produced little or no surplus. Feed them good sugar syrup to amply provide them with stores until another season. No doubt they will repay you manyfold for your outlay, and you will have a stock of bees, whereas, had you not provided stores, nothing but empty hives would be left, and to the inquirer you would say: "Bees are no good. They winter killed." No wonder bees winter-kill, if they have not enough food to last them till spring. There is little more logic in expecting bees to provide themselves under all conditions with sufficient stores for winters of variable intensity and duration than to expect live stock to lay in a supply of fodder.

If your bees should be light of stores, do not delay, but feed them a sufficient quantity of good sugar syrup, made of two parts granulated sugar and one part hot water. A Miller feeder, which will hold enough for wintering a colony and which may be used in all kinds of weather, is the best to feed with at this time of year. Pepper-box feeders are also good, but the Miller is preferable on account of the quantity which one will hold.

Just how much feeding need be done depends on the amount of stores the colony already has, the length of time before they will be able to secure sufficient from natural sources, and the populousness of the particular colony. Practice will determine that. In this locality, where bees are confined about five months and there will be another month before sufficient honey can be gathered for daily needs, at least thirty pounds of stores must be available.

The articles written by some of our leading apiarists advocating from ten to twenty pounds of stores no doubt are the cause of many novices getting a wrong idea as to the amount really required to winter a normal colony, and thus are many lost from insufficient stores. False economy plays its part. Rather than buy sugar to feed, the bees are allowed to take their chances, no matter how much stores they happen to have.

You bee-keepers who do not see the inside of the brood chamber, learn to know how heavy the hives, bees and all, should be to insure safe wintering, and be sure they are sufficiently heavy before placing them into the cellar. If there should be any doubt as to their wintering safely, feed them before cellaring, or mark the hive, so an examination may readily be made before spring to see that they will winter safely.

Better provide for winter as soon as possible after the honey crop of the year is over.

Osakis, Minn., Oct. 31, 1904.

FORCED SWARMS.

A Peculiar Result in Practicing the Heddon Method of Preventing Afterswarms.

By C. S. Harris.

In the numerous reports of forced swarms, I have seen but few from southern points; so perhaps an experience from this state may be of interest.

I had been desirous of trying the shaken swarm plan since it first came prominently to the front, several years ago, but, until the past spring, the seasons here had been too poor to give it a fair trial.

This spring, however, opened with old-time promise, the natural flora being supplemented by the heaviest orange bloom since the disastrous freezes of nearly ten years ago. After a long winter of steady cool weather, March came with a burst of blossom and warmth that soon set the bees to swarming.

I shook all colonies as fast as I discovered them with cells, some upon starters and others upon full sheets of foundation, giving them a comb containing some brood and honey.

In a good steady flow, and with young queens, I have no doubt starters are all right, but some of my queens were three and four years old, and in these cases much drone comb was the result, as well as the swarming of these shaken swarms with old queens as soon as they could start cells. This did not occur with any one or two-year-old queens, and most of the others should have been replaced last fall.

The flow was chopped off by north winds, so that those last shaken, as well as natural swarms, had to be assisted, but enough was done to prove that the plan, under favorable conditions, would work quite satisfactorily here. I did not try the double, or second shake, as I wanted the brood for use in nuclei.

In this connection I will state tha this spring I ran across one of the exceptions to a general rule. When the old hive was moved from beside a natural swarm, hived on the old stand, the bees of the swarm killed al of the bees of the parent colony returning to it.

Holly Hill, Fla., Oct. 24, 1904.

Some of our large honey-dealing firms are striving for the maintenance of a profitable market in our own country for American honey. Others are, obviously, seeking to profi through the introduction of a foreign product that will, at a lower, though more profitable figure, crowd American goods "off the earth," so to speak Let us seek to cultivate the acquaintance of, and to co-operate with, the honey barons who seek to maintain a profitable American market for the American product.

SIXTY YEARS AMONG THE BEES.

First Letter.

By W. J. Davis, 1st.

ON JANUARY 1, 1845, two good-sized boys might have been seen with a one-horse sleigh, making for a bee-keeper's home on a hill north of the valley of the Brokenstraw creek, a tributary of the Allegheny river, in western Pennsylvania, to become the legal owners of a hive of bees.

The "boys" were the writer and an older brother.´ We purchased from an uncle, for $5.00 in silver, a colony of bees in a section of a hollow log, with a wide board nailed on the upper end and a similar one for a bottom, with hree or four triangular notches in he lower end of the log for "fly-holes" or the bees.

What mysteries were hidden in that primitive home of blackness and weetness! The bees in color would uit the most ardent admirer of the blacks, and the combs were as black as the bees and would, no doubt, suit Dr. Miller or any of the advocates of old combs. The bees (I should say, the log) was at the east end of a building used for repairing things, or a kind of a rainy-day resort, which we youngsters designated, the "Sub-Treasury." The older reader will remember that was a more common word then than now. The bees wintered fine, and when spring awoke, two boys might have been seen, one on either side of the old log, watching the industrious citizens going and coming.

"See there," says one boy, "what a great load of honey that bee has on its legs." Then someone told us that it was not honey on their legs, but wax. When a Yankee boy with a little Dutch blood in his veins starts out to investigate a thing he is going to investigate.

Some time in May that hive began to show some awful big bees, and early in June out came a swarm. We were provided with some new hives, all painted red. They were called the Weeks hive, the "most wonderful invention under the sun." But in truth, it was a great improvement on the straw skep or log gum. The brood chamber would hold about one bushel,

American Bee-Keeper

Home and Apiary of Capt. H. H. Robinson, Cuba.—(See Editorials.)

dry measure, above which was a chamber intended to hold two twelve-pound boxes for surplus honey. Seven one-inch holes for each surplus box admitted the bees from brood chamber. A glass in one end of box (covered by a slide) enabled the bee-keeper to judge of the state of completeness of the surplus. One peculiarity of these hives was that they were hung by cleats nailed on each side and the front of hive was three or four inches longer than the back, and the bottom-board was hung to the hive by four wires, which allowed the bees to pass out anywhere at bottom of hive, and was closed by simply shoving the bottom forward, and turning button in rear. I have taken hundreds of pounds of surplus honey from just such hives.

But did you ever hear of an enthusiastic young bee-keeper who did not want to construct something new in the way of a bee hive that would embrace his own ideals of what a hive ought to be? If you have, dear reader, all I have to say is "That is a sign. He never would do for a hero of mine." This, remember, was before thedays of large plants for the manufacture of bee-keepers' supplies. Before the invention of the movable frame hive, three years before Capt. Baldenstein called the attention of Dr. Dzierzon to the Italian bee, and eight years before that pioneer in scientific bee culture had seen the beautiful bee so much admired on this western continent. So many different shapes and sizes of hives were made some with large glass in front, but covered by door, but retaining the surplus feature spoken of above.

Every bee-keeper in those days made his own hives, and quite often hives were made while the swarms awaited on the limb of a tree. Bees wintered in those days on their summer stands here in western Pennsylvania without protection. Though the winds blew and the snow fell as at present, the vast acreage of forests seemed to take away the bite of the wind that later years produce. The usual price of honey in the forties and early fifties was about 12½ cents per pound. Much of the land, but lately cleared, was rich in vegetable mould and potash from the burned timber, and the white clover was rich in nectar. Youngsville, Pa., Dec. 19.

HARDSCRABBLE INTERVIEW.

Ah-h-h. Eh? Well, here's happy days. Now I feel better.

Talkin' of De Luxes, either you or Ernest don't know 'em when you see 'em. You said they've just put out a new edition of A, B, C—fortunit 'taint claimed to be the X Y Z—and are now goin' to De Luxe it. Durn fine deluxin' it'll be arter the types be all worn down. Only Mr. DeLuxy's I ever hearn on were the first born of the press.

Them "Going-to-Bees" in the January American Bee-Keeper sound powerful true. Queer what a crop of 'em·is steady sprouting.

Stahlman's apiary is liken to a crazy stoned old graveyard.

Joe Pen's troubles of "Unpreparedness" 'minds me of the Japs, 'cause they're so opposite.

I'm blamed sorry for Hewitt, with J. E. J. after him. He'll sure find it "Too much Johnson."

Say, you caught me right good with your camera, but there's one thing you can't do, sonny, smart as ye be; ye can't "put your finger on me," b'gosh . Hawh! Hawh!

Don't like that laugh, eh? 'Taint nateral? Reckon you all don't know a ghostly laugh yet.

The filling in your Bee-keeping World now and again goes to show how much sawdust composes our dolls' innards. No reflection on the compilers, but on the rag baby.

Harry, I'm 'shamed of yer. Nutmegapis Dorsata, forsooth! Connecticut blood in your tubes, sure.

In the American Bee Journal for January 5 I see here, that the editor asks regarding tales of the press, "Why Do They Lie So?" Bless his dear innocent little soul, they wuz born that way, they wuz, most on 'em.

Same paper has Hasty talking about "sawing off swarms." Funny swarms, them; but serious, a bloomin' crime against the trees.

Going? Well, so long.

A Johannesburg correspondent, in the Bee-Keepers' Record, states that conditions favorable to bee-keeping exist in the Rustenburg and Pretoria districts of South Africa The nectar supply comes chiefly from the gum trees that have been planted in former years.

THE BEES.

The following inspiring effusion, transcribed f n a book entitled "A Short History of Bees," h been sent to the American Bee-Keeper by a Nthern friend.)

Now listen while the wond'rous powers I sing,
Ad genius given to bees, by Heaven's Almighty King.
Tey, they alone, a general interest share,
Teir young committing to the public care;
Ad, all concurring in the common cause,
Le in fixed cities, under settled laws:
O winter mindful, and inclement skies,
In summer hoard for all the state supplies.
Aernate some provide the nation's food,
Al search it o'er each forest, field and flood.
Some for the comb's foundations gather glew,
A temper gums with daffodil's rich dew.
Thn with nice art the waxen arches bend,
Or with nectareous sweets the fret-work-cell distend.
Some by joint compact, at the city's gate,
nnt and watchful of Heaven's changes wait.
Exmine every motion of the skies,
Wt showers approach, what storms or winds arise;
Or ase the burdened laborer's limbs, or drive
Th drones, a race of sluggards, from the hive.
h crowded dome with toil intensey glows,
Ar from the breathing sweets a blended fragrance flows.
a knows his task; the old their owns attend,
hae their nice cells, their doedal works defend:
ut ate at evening, those of youthful rime,
etn fatigued, their thigh surharged with thyme.
he prey on arbutes, willow-buds evour,
we cassia and the saffron's golden ower:
ro fruitful limes suck rich melliuous dew,
And seek soft hyacinths of purple hue;
All rest together, all together toil,
At morn they rush abroad the flowers to spoil;
When twilight evening warns them to their home,
With weary limbs and heavy thighs they come,
And crowd about the gate, and mix a drowsy hum,
At last into their inmost chambers creep,
And silent lie dissolv'd in balmy sleep.
When East winds blow, or gathering rains impend,
The skies they trust not, nor their flights extend;
But drink of streams that flow their city nigh,
Work near their walls, and short excursions try;
On rugged rocks, oft as abroad they fly,
They tear their wings, sink with their loads and die.
Such love of flowers inflames their little hearts,
So great their glory in these wond'rous arts.

THE QUEEN.

The state united stands, while she remains,
But, should she fall, what dire confusion reigns!
Their waxen combs, and honey, late their joy,
With grief and rage distracted, they destroy:
She guards the works, with awe they her surround,
And crowd about her with triumphant sound.
Her frequent on their duteous shoulders bear,
Bleed, fall, and die, for her in glorious war.
———— to their toils in early summer run,
The clust'ring bees, and labour in the sun:
Lead forth in colonies their buzzing race,
Or work the liquid sweets, and thicken to a mass.
The busy nation flies from flower to flower,
And hoards in curious cells the golden store;
A chosen troop before the gate attends,
To take the burdens, and relieve their friends,

Warm at the fragrant work, in bands they drive
The drone, a lazy robber, from their hive.

Tell me, ye studious, who pretend to see
Far into nature's bosom, whence the bee
Was first inform'd her vent'rous flight to steer,
Through trackless paths, and an abyss of air?
Whence she avoids the slimy marsh, and knows
The fertile hills, where sweeter herbage grows,
And honey-making flowers their opening buds disclose;
How from the thicken'd mist, and setting sun,
Finds she the labor of her day is done?
Who taught her against winds and rains to strive,
To bring her burden to the certain hive;
And through the liquid fields again to pass,
Duteous, and heark'ning to the sounding brass?

The careful insect, 'midst his works I view,
Now from the flower exhaust the fragrant dew,
With golden treasure load his little thighs,
And steer his distant journey through the skies;
Some against hostile drones the hive defend;
Others with sweets the waxen-cells distend:
Each in the toil his destined office bears,
And in the little bulk a mighty soul appears.

When golden suns appear
And under earth have driv'n the winter year;
The winged nations wander through the sky,
And o'er the plains and shady forests fly:
Then, stooping on the meads and leafly bowers,
They skim the floods, and sip the purple flowers;
Then work their woven lodgings their hives,
And labor honey and sustain the lives.

Here their delicious task the ferve bees
In swarming millions tend; arour athwart,
Through the soft air the busy natio fly,
Cling to the bud, and with insert tube
Suck its pure essence. its ether soul.
And oft, with bolder wing, they so ing dare
The purple heath; or where the w thyme grows,
And yellow load them with the l cious spoil.

As when the bees their waxen to forsake,
Careless in air their wand'ring v they take:
No more in clust'ring swarms c dens'd they fly,
But fleet uncertain through the v ous sky;
No more from flowers they suck liquid sweet,
But all their cares and industry get,
Then, if at length, the tinkling b they hear,
With swift amaze their flight t soon forbear;
Sudden their flow'ry labor they new,
Hang on the thyme and sip the ba dew.
Meantime, secure on Hybla's frag plain,
With joy exults the happy shep swain;
Proud that his art had thus prese his store,
He scorns to think his homely cot poor.

Hark! the bee winds her small, mellow horn
Blithe to salute the sunny smile morn,
O'er thymy downs she bends her course,
And many a stream allures her t source.
'Tis noon, 'tis night:—that eye so ly wrought

eyond the search of sense, the soar
  of thought:
ow vainly asks the scenes she left
  behind,
s orb so full, its vision so confin'd!
ho guides the patient pilgrim to her
  cell?
ho bids her soul with conscious triumph swell?
ith conscious truth retrace the
  mazy clue
f varied scents, that charmed her as
  she flew.

OUR
CORRESPONDENTS

SRAW SKEPS, THE PUNIC DISCUSSION, ETC.

Markham, Ont., Dec. 20., 1904.

Iitor American Bee-Keeper:

When I read your editorial in the Icember Bee-Keeper, "Where Are Te Straw Skeps?" in view of your eressed wish of possessing "an old saw hive," I came very near shipg you one for a Xmas "box."

Iowever, when I reflected that it wuld be probably near spring before y would receive it, "way down sf," I thought when you would see tl express bill you would be apt to rard it more as an April "joke."

ears ago the straw "skep" was qte a common thing all through tse parts. My grandfather and gatuncle, of respected memories, ch at one time owned over a hundd colonies, all in this kind of hive, smuch in vogue in those times.

Vhile there are now none of these "ves" occupied with bees, yet quite a umber of them are still in evidence, a oodly number occupying the "exald" positions of hen's nests, a purpe for which they are admirably apted. At the recent fruit, flower ar honey show, held in Toronto, one ofthese "skeps" was on exhibition, ar judging from the remarks of qie a few apiarists. I believe they we not commonly in use years ago inother counties of Ontario as exteively as they were here in York coty.

, the discussion as to the merits an demerits of Punic bees. While it seems to be a mooted question as to their "stinging" qualities, this qualification seems to be developed to an abnormal degree in all those taking part in the controversy, pro and con.

I had some thought of trying a few queens next season, but will have to deny myself the pleasure.

I fear we might be called upon for an "opinion," and we certainly would be afraid to "run the gauntlet" under such desperate conditions.

Wishing you the compliments of the season,

Yours, etc.,
J. L. Byer.

PUNICS HIS FAVORITE.

Editor American Bee-Keeper:

Seeing the account in your journal of October last re "Punic Bees," by Prof. Benton, permit me to say that I do not agree by any means in what he says about them.

It is now four seasons since I had Punic queens sent me from Mr. Hewitt. I was informed of their wonderful qualities by two neighboring bee-keepers, who had kept them several years, and naturally I wanted to try them, which I did. The first season I had over two dozen. This last season I received three dozen. I would like to get them into all my hives. I have never had any bees equal to them. They are most prolific good tempered and excellent workers. I have extracted over 170 pounds of honey from one hive, and more, so far I have found them to be proof against foul brood. I have introduced a first-cross Punic queen into a hive rotten with foul brood, and the disease has disappeared; in fact, several hives I have proved in this way, which is a boon to anyone keeping bees. I feel they cannot be spoken of too highly. I would just say my hives number at present about seventy. Last September I sold a friend fifty stocks, in frame hives, and safely delivered them thirteen miles distant, and half of them were Punics, with fifteen frames for brood nest, standard size. Anything less is not suitable for them. Much more I could say, but will leave it for another time.

A. J. Bartlett.
Corton, Upton Lovel, Wiltshire,
England, Dec. 22, 1904.

Swarthmore, Pa., Dec. 29, 1904.

Editor Bee-Keeper:

The Society of Apiculture of Aisne, France, has just issued a series of twelve handsome post cards, each bearing an attractive photo engraving of scenes in and about the apiary, with a view to directing the public attention to honey as a food, and "hydromel" as a drink in the place of wine. These cards illustrate subjects of popular interest—several of them depict children in the act of taking honey either from the hive or from a jar; a man holding a swarm of bees is shown; a horse eating a chunk of honey; a house party indulging in hydromel—" a drink fit for the gods." All in all it is a good ad. and is gotten out in the typical artistic French style. "Swarthmore."

FEEDING BEES.

Sheffield, Eng., Dec. 21, 1904.

Editor Bee-Keeper:

The article on the first page of the December issue, by Arthur C. Miller, is a gem that all bee-keepers should study and act up to. Contrast it with the silly one by Dr. L. E. Kerr on page 248, where he says, "All inteligent bee-keepers now rely to a great extent upon the sugar barrel."

I wont stop to argue such rubbish; —to buy sugar, make it into syrup, and waste further time feeding it, when bees pay nothing for the honey they gather and no time is wasted in making syrup or feeding. Nor does he seem to know how to work the "divisible brood chamber hive" to advantage.

John Hewitt.

MORE ABOUT BEE-STEALERS.

Waverly, N. Y., Dec. 6, 1904.

Editor Bee-Keeper:

The item in the Bee-Keeper giving an account of the theft of bees at Glenlock, Pa., reminds me of the theft of a colony belonging to Mr. Peter Bogart, of Lockwood, N. Y. I wish to give it to the Bee-Keeper, as it may be of use to some of them in finding stolen property. The bees stolen were in a box hive. The owner discovered his loss early the next morning and visited an apiary on a mountain a mile or more distant, which was owned by a person h ing a shaky reputation. The b were not found, but he discovered mammoth box hive and greatly w dered why a person should make large a hive. Several years after a r ative of the man owning the large h became angered at him and told man who lost the hive that the la hive covered the hive he had stolen the time he saw it. Several years ter, a yoke of oxen were stolen a driven to a distant butcher and s The bee thief was strongly suspic ed and fled the country, leaving good farm partly paid for. A years after he was detected with other skip in the night, and failing halt when ordered, was given a s that proved fatal.

J. H. Andr

NEW APIARIAN PATENTS.

A patent has been issued to Os F. Kerr, Texas on a beehive which the following claim is held:

A bee-hive comprising a brood chamber and a comb-frame chaml means for preventing egress from brooding-chamber, an apertured tition separating the two chamber valve provided with aperture ada to be moved into and out of regi with those of the partition thereb cut off or establish communication tween the two chambers, a cover the comb-frame chamber, and sm distributing means carried by cover.

A United States patent has been taken out by Carl Ludloff, Mexico, whose claim is as follows

A bee-hive comprising a base-fra bottom boards attached to said fr and having their edges overlap pro ing openings at the ends, a plura of comb-frames removably suppo on said base-frames one against other, and a cover for passing said frames and resting on the b frame.

In the bee's list of "breakfast foo honey is the "whole wheat," w substitutes, such as syrup, etc., are the pastry flour.

One hundred and fifty-seven m bers were present at the St. Louis tional convention of bee-keepers.

THE

Bee-Keeping World

Staff Contributors: F. GREINER and ADRIAN GETAZ.

Contributions to this Department are solicited from all quarters of the earth.

AUSTRIA.

Jung-Klaus says in Boh. Imker, it is his opinion that there is very little in the hive. It is all in the man. Further on, among other things, he describes the condition there in this fashion: "The common people will hardly get along with newfangled frame hives; they prefer the simple box, which gives no further trouble after the swarm is hived till harvest time."

Of M. Ambrozic, the intensive Austrian bee-keeper, who died recently, it is said that he exported inside of senevteen years about 34,000 swarms of bees. He dealt wholly in Carniolan stock.

GERMANY.

A certain bee-keeper in Schleswig Holstein has come to the conclusion that feeding sugar is risky business. He had fed his bees during the early spring. When harvest time came he extracted what he supposed to be pure bee-honey, and sold the product to a dealer. The latter had the honey analyzed and it was found to be adulterated. The bee-keeper was fined. The Schlesw. Holst. Bztg. adds: It is evident that a good deal of sugar fed to bees is not inverted and remains sugar.

The same paper tells in the December number that comb honey is now manufactured in America, but says that the manufacturers have not yet succeeded in sealing the honey.

In taking a colony of bees out of a bee tree the operator found in one case very shallow combs ten feet long.

It is said that Wygant advised not to treat bees with tobacco smoke. But, he continues, if you don't want to give up the use of tobacco on the bees' account, give it up for the sake of your own health.

SWITZERLAND.

So-called Switzer honey has often been found a purely artificial product. This has, of course, caused Switzer honey to be regarded with suspicion. The Switzer Bienen Zeitung is now publishing a list of hotels and resorts where pure Alpine honey is served.

The exhibition of honeys and wax at the fair in Bremgarten had for one of its objects to inspire confidence in the product of the hive. Judging from the photos, the whole exhibit consisted of honey in liquid shape, mostly in glass, nicely decorated and arranged. The beeswax appeared in fancy mould and casts, among other things representing popular men and scenes of national character. An important feature was a honey stand, with a girl in the peculiar national attire serving as "salesman."

At the Bremgarten honey exhibition eight honey exhibits were rejected on account of the honey not being ripe, some because of not being clean. —Schweiz. Bztg.

To improve dairy butter, says the Schweitzer Bztg., take 60 grains of honey to one kilogram butter, knead well. The same recipe has been published in American bee journals years ago. Who has tried it here?

An odorless coating for felt roofing is spoken of in Schweiz. Bztg. as follows: "Coal tar and slaked lime, half and half, well stirred, then applied."

As soon as may be determined, we should be pleased to learn the results of the winter upon the bees of our readers.

MADAGASCAR.

Bee-keeping upon this island is hardly in its infancy. There seem to be no frame-hives in use. The government offers a reward of 500 francs to the first bee-keeper who operates as many as four frame hives. The bees in the forests are hunted by the natives. The honey is all used at home, but wax is exported in large quantities.—Leipz. Bztg.

FIRST ANNUAL CONVENTION

Of the Pennsylvania State Bee-Keepers' Association.

The first annual convention of the Pennsylvania State Bee-Keepers' Association closed at Harrisburg at 11 p. m. December 7th, having been in session since noon of the 6th. The meeting was most profitable and enjoyable.

The first session on Tuesday afternoon was devoted to business. Immediately after this session the officers of the Association, together with Manager France, of the National, and Mr. Benton, of Washington, D. C., called upon Governor Pennypacker. The Governor showed great interest in the industry represented and asked many questions. The audience lasted full forty minutes.

On Tuesday evening President Surface, State Economic Zoologist, addressed the meeting, dwelling largely upon the education necessary to put our industry upon a more substantial footing. The address was followed by a paper by Dr. E. F. Phillips, of the University of Pennsylvania, Philadelphia, upon, "Habits of Bees and Some Misapprehensions."

The Wednesday morning session was taken up entirely by the disease question, which was ably presented by Manager France.

Wednesday afternoon Mr. Pratt spoke upon "Queen Rearing," Mr. O. C. Fuller upon "Bee-keeping as a Business" and Mr. Gabriel Heister, of Harrisburg, a prominent horticulturist, upon "Bees and Horticulture."

Wednesday evening Richard D. Barcley, of the State College, outlined the work which has been done and which was proposed to do in apicultural lines at the Pennsylvania State College. Mr. Frank Benton, of the United States Department of Agriculture, presented a most able and interesting paper upon "Improvement of Honey Bees." Rev. W. H. Bender, of Adams county, presented a paper upon "Honey-Bearing Flora of Adams County, Pa."

The convention passed resolutions upon the death of W. E. Yoder, of Lewisburg, concerning desired legislation, and thanking those who had favored this association during the convention, and thanking the president and secretary for their efforts for the past year.

Worcester, Mass., Jan. 10, 1905.

Editor Bee-Keeper:

Enclosed please find $1.00 to pay for The Bee-Keeper for three years. I like the paper very much. If there is any place in this country where one can order a colony of Punic bees, please let me know in next month's issue. S. H. Cheney.

We know of no one in the United States who has Punic stock for sale. They are advertised in our Queen-Breeders' Directory, however, by Mr. John Hewitt, Brunswick Works, Sheffield, England. Almost anything that one cares for in the queen line may be found by consulting this directory. Our readers should familiarize themselves with it. Its object is to afford our patrons just such information as is needed in regard to different races and where they may be secured.—Editor.

A BEAUTIFUL BEE CALENDAR.

As a token of kind remembrance, we have received from Mr. W. F. Marks, president of the New York State Association of Bee-Keepers' Societies, a handsome calendar for 1905, upon which is embossed a half-dozen heads of clover, in natural colors and gold against a field of blue; with a huge worker bee on the wing, also embossed in colors. A number of smaller bees embossed in white and gold give added beauty to the piece as well as emphasize its apiarian application. The whole is attached to heavy Kitchell mat-board and tied with a blue ribbon. It has been given a prominent place by the editor's desk.

THE AMERICAN BEE-KEEPER

PUBLISHED MONTHLY.
THE W. T. FALCONER MANFG. Co
PROPRIETORS.
H. E. HILL, - EDITOR,
FORT PIERCE, FLA.

Terms.

Fifty cents a year in advance; 2 copies 85 cents; 3 copies $1.20; all to be sent to one postoffice.

Postage prepaid in the United States and Canada; 10 cents extra to all countries in the postal union, and 20 cents extra to all other countries.

Advertising Rates.

Fifteen cents per line, 9 words; $2.00 per inch. Five per cent. discount for two insertions; seven per cent. for three insertions; twenty per cent. for twelve insertions.

Advertisements must be received on or before the 15th of each month to insure insertion in the month following.

Matters relating in any way to business should invariably be addressed to
THE AMERICAN BEE-KEEPER,
Falconer, N. Y.

Articles for publication or letters exclu- for the editorial department may be addressed to
H. E. HILL,
Fort Pierce, Fla

Subscribers receiving their paper in blue wrapper will know that their subscription expires with this number. We hope that you will not delay favoring us with a renewal.

A red wrapper on your paper indicates that you owe for your subscription. Please give the matter your earliest attention.

Extracted

The Bee-Keeper has arranged with Mr. W. J. Davis, 1st, of Youngsville, Pa., one of the successful veteran bee-keepers, to write a series of historical letters for publication. Every season adds hundreds of new readers to our subscription list and to these especially, will this series be interesting and instructive, as all the important events in the history of apiculture in America from 1845 to the present will be duly noted in Mr. Davis' own plain style, so all will be clearly understood by the uninitiated.

The Swarthmore Shops presided over by that versatile genius, E. L. Pratt, Swarthmore, Pa. have issued another nicely illustrated booklet on queen-rearing by the Swarthmore methods. Its title is, 'Baby Nuclei." It is "hand made," and is brim full of interest to those interested in the rearing of queens. Swarthmore is a real disseminator of enthusiasm.

The American Buscuit Company, one of the most extensive baking institutions in the world, and, by the way, heavy consumers of extracted honey, it is said, advise consumers of its product to "spread with honey." Should the National Biscuit Company incorporate such good advice into its general advertising, wholesome results may be expected to accrue to honey producers.

Older and (perhaps) wiser contemporaries have said that the United States has nothing to fear from West Indian competition in the honey business. The American Bee-Keeper has and continues to maintain that West Indian competition is to become a very formidable competitor for Amerincan trade in our line. Last season saw the introduction of the conditions prophesied. Let the reader observe the results of 1905 in this connection, and judge as to whether we are upon a solid footing under the present tariff schedule.

A BASE REFLECTION.

"Is that all The Bee-Keepers that go to that State?" queried a green assistant in our mailing department last month, as he lifted the Kansas bundle into the mail sack. "Kansas ought to be good for bees," he continued, with the know-it-all air that characterizes green hands.

"Why should it be good for bees?" asked the old hand, who, of course, has the nectar-yielding capacity of every state and territory down pat.

"Well, it's good for nothing else, and it ought to be good for something," came the prompt response.

We have great hopes for the future ot this recent acquisition.

CAPT. ROBINSON'S APIARY IN CUBA.

Elsewhere in this number of The Bee-Keeper we have the pleasure of presenting a splendid picture of the apiary and "la casa" of Capt. H. H. Robinson, of Cuba.

Just now, when the greater portion of our great country is clad in a mantle of snow and the hum of the bee has been hushed by the menacing blasts of winter, it is interesting to have a glimpse of summer life as it exists in our "cute little sister" republic—Cuba, with its fleecy, tropical clouds, its picturesque mountain peaks and placid inland waters softly tinted by a summer sun.

Capt. Robinson is an American boy, with whom the writer of this sketch has spent many weeks indulging in bee work, bee chats, cruising and photography. He is an excellent photographer as well as an expert apiarist; and is an amateur navigator of the first class. The little apiary and palm-thatched home, nestled among the great banana stalks, surrounded by his family, represents the realization of "life's dream," to the genial captain, without a doubt, for a home and an apiary in Cuba's delightful climate was always a favorite picture in his mind's eye, as evidenced by his partiality to this theme.

That he may feel enjoyment as keen in its participation as he did in its anticipation, is the wish of The Bee-Keeper.

WIRING BROOD FRAMES.

The practice of wiring frames to support the foundation, it appears, is becoming more popular than formerly. Following the introduction of the practice, wires were used vertical, horizontal and diagonal. In fact, the idea seemed to prevail that if a few wires were a good thing, a lot of wires were a correspondingly better thing; and the frames that were wired at all were usually made a network of wires.

The next advance step, perhaps, was that of abolishing all but the vertical wires, of which three or four were used. Now the thing has simmered down to about two to four horizontal wires, as a general thing; and this, indeed, seems sufficient—much better, in fact, than the vertical style, for there is no possibility of the foundation sliding down a horizontal wire, as was sometimes the case when none but the vertical wire was used. The credit for the introduction of horizontal wiring, we believe, belongs to Mr. Geo. E. Hilton, of Fremont, Mich., who was using this system in the early eighties.

RESULTS IN WINTERING.

Functional Conditions May Have a Bearing Upon the Matter.

Mr. A. C. Miller, of our staff, who is unquestionably one of the most studious apiarian investigators of our day, submits the following:

Apropos of early and thorough preparation of bees for winter, the value of a full larder early stocked, the following from Newport may be added. Probably it will be new to most bee-keepers:

He says: "It is well known to the cottager, that when the flowers have not yielded an abundance of honey in the latter part of the summer, the bees in his hives will have less chance of existing through the winter than when the production of honey has been plentiful. This latter circumstance may, perhaps, be said to arise from a deficiency in the quantity of honey stored up by the bees, but I have strong reason for believing that it arises chiefly from the bees being in a worse bodily condition, and having but a small quantity of nutriment stored up within their own systems, which alone enables them to pass some portion of the winter in a state of repose. If the female of the common bumble bee, Bombus terrestris, which sleeps through the winter and appears early in the following spring, be examined about the end of September, its abdomen is found to be supplied with large bags of fat. At that period the insect is less active and evolves a smaller quantity of heat than in the spring, when there is a much lower temperature of the atmosphere. And if at that period the insect be deprived of food, it will continue to live very much longer than it would have lived, under similar circumstances, and exactly at the same temperature of the atmosphere, in the month of April."

TIMES ARE CHANGING.

ack in the early eighties of the last ctury an attempt was made to estaish "The Stingless Bee Associati of America." The promoter of th worthy enterprise was to collect $100 each from those who chose to bome members, and the cash was to dray his expenses to Brazil in quest of stingless race. Much of the ronce which spiced apiarian periodial of that day has evaporated, leavn an atmosphere of prosy facts. Figrively speaking, the regulation bee onal of today has simmered down o he discussion of "when to put on uers."

BEE PRANKS.

B. Lewis Co., the "Beware" peol of Watertown, Wis., one of our drtisers, have issued a unique oklet, entitled, "Bee Pranks," in wh is presented a number of fac ile extracts of noteworthy newsar and trade journal extracts in erd to bees. It's a "cute" thing, nis interesting. We understand that h Lewis Company will mail a copy r to anyone who will send them h names and addresses of five beeeers. Or it will be sent for five ers.

BEE CULTURE.

By Thos. Chantry.

rn the Progressive Poultry Journl.

e profit in keeping poultry is arly due to the foraging nature of hefowls, in gathering up and turnnginto eggs and meat what would trwise go to waste. The same ue of the honey bee, only to a reter extent. There are tons, yes, nay tons, of nature's best sweet, og to waste over our pastures and el and prairies, because there are o ees to gather up the sweetness. hen I went from Mt. Vernon, oh Dakota, in 1897, I found about w hundred colonies (or hives) of ee in Clay and Yankton counties, caered here and there a few. When sk how much honey they yielded o than their living, many people ai they got a little some years, and o years none. My experience soon hced that there was a time, after ru bloom in May until about the 25th of June when bees were in a starving condition, as there were no nectar-yielding flowers during that period, and as bees are rearing thousands and thousands of young ones at that time, they soon used up their supply and some actually starved to death, while others ran down and decreased rather than increased. To overcome this, if I had no honey to feed, I placed a shallow pan or crock in the super, or surplus box on top of the combs or nest, and lined it both inside and out with cheese cloth, or an old flour sack, then made a syrup of equal parts of best granulated sugar and water and poured two or three pounds into it every few days. This was fed to the young ones and kept them in a strong, healthy condition, and when the summer flowers began blooming, the bees rushed out by the tens of thousands and soon had gathered in a nice lot of as fine honey as anyone need want, while the colonies allowed to starve or run down, had no bees to spare to go to the fields, consequently I got an average of eighty pounds surplus per colony one year, while some choice colonies yielded over two hundred pounds each.

The winter is a great drawback to bees, if left to themselves. Some winters they may come through without loss, and so might your hens roost in trees and get through all right with not more loss than frosted combs and a few short toes, but a bad winter and not one of them would be left. It is the same with the bees, but I succeeded in saving every good, strong healthy colony by putting them in any cellar where potatoes would keep well. Just set them with entrance in the corner a foot or more from the ground, one on top of the other as high as you can. The entrance must also be three or four inches higher than the back end. Then hang any old thing around them so they will not get the least bit of light. Just make them think it is the longest, darkest night that ever was, and don't disturb them by touching or jarring the hives. When there is a fine, balmy day in the last days of March, or first of April, set them out on the same stand they were on last fall, and they will come out as if it was only yesterday that they were carried in the cellar. They should be carried in before real winter sets in, at night after a pleasant day in November seems to give best results.

I write especially about the care of bees during the starving time in the spring and the safely bringing of them through the winter, because these things seem to be the greatest drawbacks to the successful keeping of bees in this state and supplying our tables, from what now goes to waste, with honey from the various clovers, mostly alfalfa and red and sweet clover, and in the eastern, or rather southeastern part, white clover and many wild flowers, shoestring, Vervain snowdrop, and the ever present and abundant goldenrod.

There is another subject I wish to mention, viz: The purity of honey. Several years ago there were stories started about the artificial making of comb honey, and it has been handed on, and many reports of factories and places where it was made. The National Bee-keepers' Association was organized by the leading bee-keepers of the United States and Canada for the express purpose of fighting the adulteration of honey. We realized that any mixture fixed up by man, lowered the food value and flavor of honey, and consequently hurt our business, and our organization has done all in its power to get pure food legislation in the States and United States. And our committees have searched for this bogus honey far and near, and a reward has been out for years to anyone finding the manufactured or machine-made honey. In all my experience, I have never seen bees build surplus honey when fed and I do not believe it can be done without loss. The following letter, from our national general manager, explains itself, and he is ready to back all his statements:

The National Bee-Keepers'
Association.
General Manager's Office,
Platteville, Wis., Oct. 10th, 1903.

The stories told about artificial comb honey being made, or sold, have not the slightest foundation in fact. There still exist a few people overwise in their judgment, who do not know the truth about honey, and are too free to report what is not true. As general manager of the National Bee-Keepers' Association, I wish to say, there is not, and never was, a
pound of artificial comb honey.
one ever saw, or knew of any su
being sold. For years there has be
a standing offer made by a relia
firm (a charter member of N. B. K.
whose responsibility is unquestione
of $1,000 for a single pound of co
honey made without the interventi
of bees. The offer still holds go
No extracted honey, as it comes dir
from the bee-keeper, is adulterat
There are but few places in the U
ed States where dealers have dared
offer the same for sale. State fo
laws define the penalties for the sa
The National Bee-Keepers' Asso
tion, of about 1,600 members, scatt
ed throughout every State and Ca
da, are each one carefully watch
for any adulterated honey on th
market. Should any be found,
facts would be made known to pro
officers, the goods analyzed, and
found adulterated, the guilty par
at once dealt with in accordance w
the State laws. N. E. Franc

A NEWSPAPER VERSION.

The daily political papers make
many blunders when they talk ab
bees that we get discouraged so
times trying to set them right,
here is an article from the Chic
Chronicle which seems too good to
missed. The article says: "Just
there are valuable strains in hor
cattle and other stock, so there are
rieties of queen bees which are wo
many hundred times their weigh
gold. The most valuable strain is
Italian, and many Italian bee farn
demand and receive without ques
prices ranging from $50 to $200 fo
single queen bee of a certain k
Such bees are sent all over the wo
The owner of a bee farm near Otta
Canada, goes to Europe annually
brings back with him bees of an
gregate value of thousands of pou
He is enabled through the agency
an Italian firm to effect insura
upon the most valuable of his que
This bee farmer has many strange
periences in connection with the
sistants he is obliged to engage.
course, all bee keepers must submi
a certain amount of stinging. Bu
some cases the poison in the sting
directly upon the assistants
makes them alarmingly ill. Others
immune, though stung hundreds

ies. Bee farmers are often applied
by persons suffering from rheuma-
m, who wish to place themselves in
e way of being stung. And, strange
it may seem, the virtue of the bee
ng does often act as a cure to per-
ns suffering from serious attacks of
eumatism." Now we are always
xious to have the daily papers boom
e bee business, but we would be
d to have the Chronicle reporter
ow us the man who has paid $200
a queen bee. We would also like
have him point out the man near
tawa, Canada, who goes to Eu-
pe annually, bringing back with him
s that aggregate in value into the
ousands of pounds. We would also
to know where the firm is lo-
ed that insures bees in transit. We
e no objections to reporters mak-
the bee business look as big as
sible, but we believe it would have
etter effect in the end if they would
p within the bounds of truth. We
l like suggesting to all first-class
lies that they employ a good bee-
per and give him a position on the
ff of reporters, and then they will
get so many wild stories in the
er about bees, but they will be fur-
hed with some things which will
ve very interesting to their read-
.—Modern Farmer and Busy Bee.

HISTORICAL SCRAPS.

Sectional brood chamber" hives
e used as early as 1803.

You cannot sweeten your mouth
saying 'Honey.'"—Turkish Pro-
b.

German book of 1692 says bees
fond of music; when one threat-
, you whistle a merry tune and he
be pacified!

t has been said that an unusually
y expulsion of drones is an indi-
on that the bees have superseded
r old queen.

erman adage:—

"e who hath thriving sheep in his
fold,
ose wife is not given to bluster
and scold
ose bees are aye wont to swarm in
due season,
grumbling and growling hath
surely no resaon."

"The American Boy"
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The Biggest, Brightest, Best Boys' Magazine in the World.

BOYS LIKE IT BECAUSE IT TREATS of everything Boys are Interested in and in the Way that Interests Them.

PARENTS LIKE IT

and their boys like to have it, because of its pure and manly tone and the high character of its contents. It is the only successful attempt to chain a boy's interest and give him the kind of reading matter that he wants served to him in such a way as to stir his ambition, uplift and inspire him. Boys want reading matter as much as "grown-ups" if they can get the right kind. If parents supply them the wishy-washy kind, or none at all, they usually manage to get the kind they oughtn't to have, and boy-bandits and would-be "Deadwood Dicks" are the result.

YOUR BOY WILL LIKE
"THE AMERICAN BOY"

and you will like him to have it, for it is interesting, instructive, and educative. Authorities pronounce it the ideal boys' magazine. It has been a tremendous success, gaining nearly 125,000 subscriptions in four years and the parents of our subscribers say it deserves a million more. As one parent writes:

"In my opinion THE AMERICAN BOY works a two-fold purpose. It makes a man out of a boy, and it makes a boy out of a full-grown man."

No publication for young people is paying so much money for high-class literary matter for its readers as is "THE AMERICAN BOY."

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Subscription Price of "The American Boy" (1 Year)	**$1.00**
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Both for Only	**.85**

Address
American Bee-Keeper, Falconer N. Y.

BRIEF REVIEW OF SIMMINS' BOOK.

By Arthur C. Miller .

"Three Hundred Pounds per Annum from Thirty Acres, or a Modern Bee Farm and Its Economic Management" is the title of a book recently issued in England and written by Mr. Samuel Simmins, a prominent bee-keeper of that country. It is worthy of more than a passing notice, in fact American bee-keepers would do well to purchase it.

The author starts out by stating it as his intention "to adhere strictly to the science of practical bee-keeping," but he soon wanders off onto poultry and cattle. One can forgive him this when viewing the pictures of his fine Jerseys.

The first chapter, entitled "Bee Culture as a Profession and for Rrecreation," begins with a homily on farming, with bees as an adjunct, drifts to how to learn bee-keeping, how to start, where to locate, growing crops, capital to invest, moving bees, sale of bees and queens, manufacture of supplies, and concludes with some interesting remarks on bee-keeping for recreation.

The next chapter, on "How to Handle," begins with precautions against robbing, then "driving," "transferring," "uniting," "smoke," "gloves," veils," "sting cures," etc. And so the chapters go, jus tas most of us "talk bees," drifting from one part to another. The lack of order and continuity detract from the pleasure of the book. Beside this, the paper and binding are poor, the illustrations are scattered indiscriminately, without regard to the text, and many "head" and "tail-pieces" are used, which, while having no connection with bees or bee-keeping, take up valuable room and add to the expense without adding to the beauty of the work. Perhaps Mr. Simmins is not to blame for these latter faults, but the first edition of his book, published in 1887, warranted our expecting much better than we have in this edition. However, the good things are so numerous and the teling of them so plainly bespeaks the work of an experienced hand, that the shortcomings may well be overlooked. Mr. S. is a firm believer in planting for honey, and uses for such purposes crops of value hay, etc. His figures of costs and turns are interesting. In consider poultry as an adjunct to a bee fa he tells of a profit of $5 a head, w in this country $1 to $1.50 each is c sidered good.

The chapter on swarming has m points quite different from Ameri practices and beliefs. The one queen-rearing is valuable, and ther a profitable chapter on the product of wax and the non-use of foundati Much is said on the use of honey food and medicine, but bears rat heavily on the medical profession.

Like all enthusiastic bee-keepers, has tried his hand at inventing, with results that are worth study Some of his conclusions as to them in hive construction are radi ly different from notions on this habits and his methods of meet of the "pond."

Mr. Simmins is much irritated the cool way some of his discove and inventions have been appropria as original by writers over here; some of the things which he consic as original with him—direct introd tion, for instance, which Huber p ticed a hundred years ago—are dently claimed under a misappreh sion. Some other things appeare old English works. But there is to be said for Mr. S.—he has, in m cases, rediscovered these old thi and, by modernizing and making p tical, made them of use to us.

The final chapter is called, "Fl Light," and consists of a collectio paragraphs which are sort of af thoughts, and relate to various s jects.

Mr. Simmins is a "free lance," when he has an idea for an exp ment or practice, goes ahead, rega less of currently accepted beli This independence has led him afield, sometimes ahead, sometir backward, but it has made the res of his work as given in his book cidedly worth reading.

Providence, R. I., Jan. 6., 1905.

Screws for compressing spa frames were used as early as 1861.

"There seems to be a hidden qual in some men which renders them agreeable to bees."—Wildman.

MARLIN The Marlin 12 Gauge Take-Down Repeater,

is the fastest and most accurate duck gun made. It combines the balance and ease of action of the best double gun with the superior shooting and sighting of a single barrel.

The unique Marlin Breechbolt which shuts out rain and water and keeps the shells dry makes it the ideal bad-weather gun. Made for both black and smokeless powders and to take heavy loads easily. A famous gun for hard usage.

There are a lot of good duck stories in the Marlin Experience Book. Free with Catalogue for 3 stamps.

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. B. WILLSON & CO. Patent Attorneys
ox 288 Willson Bldg. WASHINGTON, D. C.

HONEY AND BEESWAX MARKET.

ffalo, Jan. 14.—Very fancy comb honey ca be sold readily, but lower grades have to be ut and pushed hard, and sell slow then. Th supply of fancy honey is moderate, with go demand for this grade. We quote our ma et today: Fancy, 14c. to 15c. Extracted, 5c. o 8c. Beeswax, 28c. to 33c.

Batterson & Co.

ston, Jan. 8.—The market is without ch ge since last quotations. The demand co nues light and supply is more than am e.

Blake, Scott & Lee.

cago, Jan. 24.—The trade in honey is not ar , and the offerings, on the contrary, are qui liberal. This makes an easy market for he uyer. Fancy white comb, 12½c. to 13c. Ex cted white, 6c. to 7c., according to flavor, No , 12c. and 12½c. Off grades, 10c. to 11c. qu y and package. Anything off, about one cen lower. Amber grades, 5½c. to 6½c. Be vax, 29c. to 30c. per pound.

R. A. Burnett & Co.
1 South Water St.

cinnati, Dec. 30.—Since our last report wa published, the price of extracted honey has dvanced, no doubt acting in sympathy wit the sugar market. We quote amber extracted honey in barrels at 6c. to 6½c. White clover extracted in barrels and cans at 6½ to 8½c. Fancy comb honey, 13c. to 14c. Beeswax, 28c.

The Fred W. Muth Co.
51 Walnut St.

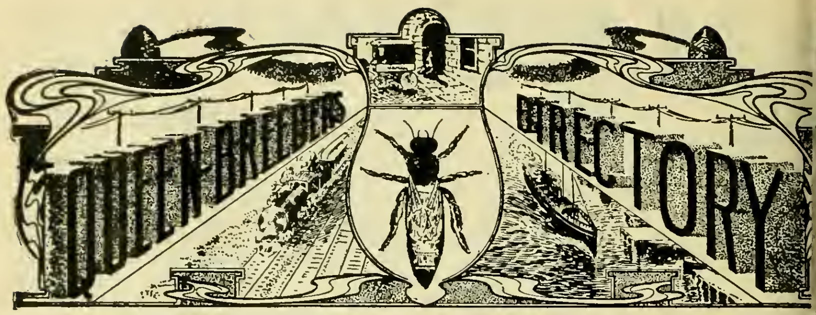
Say Boys You can have 80 acres of good land or $5000 in Cash to start business with when you come of age.

Or if you want three years at some first-class college you can have that. Your father may not be financially able to give you this, but I have plans that will enable any bright energetic 14 year old boy to do for himself just as I say above. It will not keep you out of school or interfere with your regular work. It is a business you can work on the side. It will help make a business man of you. I will send full particulars free and help just one boy in each school district to learn the work; you want to be that boy. When the other boys learn what you are doing they will want to get in too. It will cost them $30.00 cash each for a start and they will have to learn how from you.

Write at once giving county, township and school-district you live in. Write UNCLE JOE, Spencer, Ind.

◆

The Russian navy would be a joke if it didn't happen to be such a nuisance.



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QUEENS from Jamaica any day in the year. Untested, 66c.; tested, $1.00; select tested, $1.50. Our queens are reared from the very finest strains. Geo. W. Phillips, Sav-La-Mar P. O., Jamaica, W. I. (5-5)

D. J. BLOCHER, Pearl City, Ill., breeder of Fine Italian Bees and Queens. Our stock speaks for itself. Safe arrival of all stock guaranteed. Free information Jan. 6

LAWRENCE C. MILLER, BOX 1113, PROVIDENCE, R. I., is filling orders for the popular, hardy, honey-getting Providence strain of Queens. Write for free information.

C. H. W. WEBER, CINCINNATI, OHIO, (Cor. Central and Freeman Aves.) Golden Yellow, Red Clover and Carniolan queens, bred from select mothers in separate apiaries.

JOHN M. DAVIS, SPRING HILL, TENN., has greatly enlarged and improved his queen-rearing facilities. Two unrelated Carniolans and a dark leather Italian lately imported. My own strains of three-band and golden; "Moore's" long-tongue; Doolittle's golden; all selects. Carniolans mated to Italian drones when desired. No disease. Circular free.

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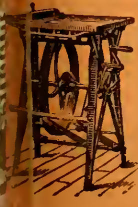

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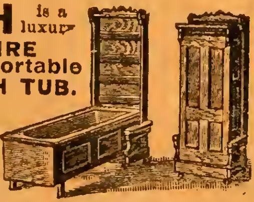

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THE AMERICAN BEE-KEEPER

Vol. XV MARCH, 1905. No. 3

HERSHISER COMBINED HIVE STAND AND BOTTOM BOARD

(Patent Applied For.)

By Orel L. Hershiser, Esq.

THE COMBINED hive stand and bottom board here illustrated and described, were designed or certain desirable objects and pur oses; not provided for in any of the ives, or in the stands or bottom boards elonging thereto. hese objects and urposes will clear y appear in the fol owing description n which reference s made to the ac ompanying illus rations.

The object of this ive stand and bot om board may be ummarized as fol ws:

First, to provide better and safer ee hive for use in intering bees in ellars or special epositories.

Second, to pro ide a bee hive in hich the safe and asy moving of ees is accomplish d, contributing e most important item of safety and omfort to the apiarist engaged in igratory bee keeping or who runs one r more out-apiaries.

Third, to provide a structure in hich the size of the entrance may be uickly and effectually regulated to ny desired size to suit the needs of e colony.

OREL L. HERSHISER.

Fourth, to provide a hive in which it is possible to bring the bees under the absolute control of the apiarist, should they engage in robbing.

Fifth, to provide a bottom board which will prevent the clogging of the entrance to the hive with dead bees in outdoor wintering; which will enable the removal of the dead bees from the hive by the bees of the colony without the latter going outside of shelter; and a bottom board which will prevent the beating of rain, snow or sleet into the hive.

Sixth, to provide a ready and expeditious means of preventing the melting down of the combs of the hive and the consequent ruin of the colony during periods of intense heat.

While the foregoing are the more salient features it may be stated that this stand and bottom board have numerous other important properties which are self-suggesting to the thoughtful apiarist but which space forbids to detail here.

Fig. 1 is a perspective view of a hive embodying the features of the stand

and bottom board, with the alighting board in position and the entrance open.

Fig. 2 is a vertical, longitudinal, sectional elevation of a hive, hive stand and bottom board, on a line near the left side showing the relation of the various parts, with the bottom and alighting boards in normal position for ordinary outdoor use.

Fig. 3 is a detail sectional view of the lower portion of a hive, stand and bottom board, on the same line as in Fig. 2, showing the normal position of the stand and bottom board in wintering bees in the cellar, or for transporting them, the bottom board being dropped down to the bottom of the hive stand, and the entrance closed.

Referring to the engravings, it will be observed that the hive stand and bottom board may be manufactured to suit any hive, and that it is composed of three separate parts, each detachable from the other, viz., the stand, the bottom board and the alighting board, as shown in Figures 1 and 2 but which in Fig. 3 is adjusted as a front board to close the stand and hive. This stand is open at the sides, which are covered with wire screen and is open at the front, the front board being removable and to be used to close the stand and hive as in Fig. 3 and as an alighting board as shown in Figures 1 and 2. This stand is also open at the top and bottom and is provided with cross pieces or sills at each end of the lower side. The bail which supports the bottom board in its upper position, as shown in Fig. 2, is hinged into ears on the cleats which run the entire length of the inside of the lower side pieces. These cleats also serve as the support of the bottom board when adjusted to its lower position as in Fig. 3. At the inside rear end of the stand a flexible wire spring support is provided for the rear end of the bottom board. When the bottom board is i its upper position, its rear end agains the inside rear end of the stand, and held snugly against the shoulder formed by cleats along the inside uppe edges of the sides and rear end piece of said stand, by such flexible wir spring and the bail, as shown in Fig 2, the front board attached to the bottom board as and for an alightin board, the hive proper is in its norma condition for outdoor use.

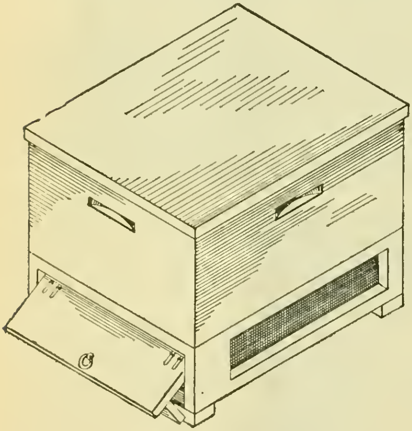

Fig. 1.

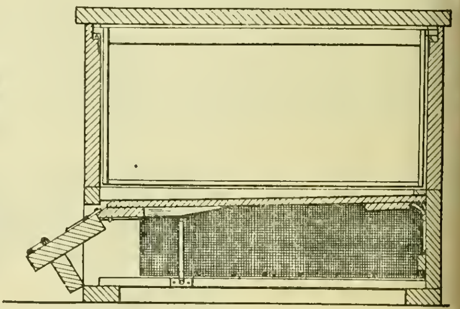

Fig. 2.

The bail, shown in Fig. 2, may b inclined backward and held in positio by lugs on the under side of the bottom board to support the latter in partially elevated position when a enlarged entrance to the hive is desi ed. By adjusting this bail, the size o the entrance opening is controlle The upper front end of the botto board and cleat beneath the same, i beveled, as shown in Fig. 2, to form th desired normal entrance. The botto board, being slightly shorter than th inside long dimension of the stan the entrance to hive is contracted b simply drawing the bottom board fo ward until the desired size of entranc is obtained. The entrance may be e tirely closed if the bottom board i drawn forward until its front en comes against the top front piece o the stand and by cutting a notch in th front end of the bottom board the e trance may be entirely closed, excep the notch, and adjusted to the flight o such small number of bees as is desired. The front board has a cleat o projection on the inside thereof a lit tle distance from the bottom, as shown in Fig. 1, so that when the bottom board is dropped down into the base or stand as a bottom thereto, and said front board inserted, this projection retains the bottom board securely in position, the rear end of the bottom board projecting under a suitable cleat as clearly appears in Fig. 3. When the adjustment is, as apears in Fig. 3, the base or stand is closed bee tight. The screen on each side allows of the free circulation of air in the hive and compartment formed by this boxlike stand so that the bees suffer no inconvenience from their confinement for cellar wintering or for any of the other objects for which it is necessary to confine them.

The front board is provided with a pair of loops on the upper outside edge which are adapted to engage corresponding hooks on the front of the bottom board for the purpose of attaching and detaching them.

This bottom board is made somewhat narrower than the inside width of the stand so as to allow of free movement and prevent any binding that might occur from swelling in damp weather. The bottom board, being pressed tightly against the lower surface of the upper inside rim, when in normal outdoor use, the edges thereof at sides and rear are entirely out of reach of the bees, so that no propolizing of the edges, can ever occur. The times when an enlarged entrance is desirable, such as in periods of heavy honey flow or in hiving swarms, are brief and at the season when little or no propolis is used by the bees. If any propolis should ever get between the bottom board and the upper inside rim he yielding springs will press it out lat. A little propolis will undoubtedy be stuck along the line of contact of the bottom board and the lower inside edge of the upper inside rim, just s it is in the angle of the sides and upper surface of all bottom boards, but it is no serious objection here any more than it is along the edges of suprs and hives.

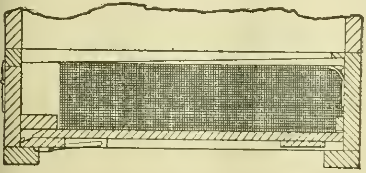

Fig. 3.

A few of the advantages to be gained by the use of this combined hive stand and bottom board may be briefly pointed out.

Bees placed in the cellar, or special repository in lieu thereof, often, and in fact generally, leave the cluster and their hives in considerable numbers, as they frequently become uneasy as the result of long confinement, insufficient ventilation or other disturbing causes. Bees that so leave their hives and the cluster are sure to die on the floor, as it is impossible for them to return in the cold and confusion. The colonies are thus weakened in proportion to such losses, often resulting in their death or their becoming so weak as to be useless for the approaching honey harvest. By means of this device, when the hive and bottom board are adjusted as indicated in Fig. 3, the bees are unable to get so far away from the cluster that they cannot return and the colonies, not meeting with the losses incident to the usual manner of inside wintering are a strong and healthy condition in the spring. It is a matter of the utmost importance to save all the bees which have the necessary vitality to pass the winter, as it is these bees that make the colony capable of profitable work during the honey harvest.

In the moving of bees this stand and bottom board permits of the expeditious closing and opening of the hives to confine them, or admit them to flight, as the case may be. To close the hive and stand it is only necessary to detach the alighting board (front board,) pull the bail forward and allow it to drop into the rabbet in the front sill, (not shown in the engraving) lower the bottom board to its lower position and insert the front board. To open the hive, the above operation is reversed, that is, withdraw the front board, raise the bottom board and slide it back into position above the flexible wire spring at rear of inside of stand, swing the bail support up under the bottom board and attach the front board to serve as an alighting board. This enables the apiarist to expeditiously prepare and move the bees to the cellar in the fall and from the cellar in the spring and to and from out-apiaries. They are also thus quickly prepared to ship long distances by freight, express or otherwise. This handling, shipping and moving of bees is done with safety from stings to the operatives, employees of transportation companies and horses and also in perfect safety to the bees from any danger of overheating or suffocating or the melting down of the combs, the abundant ventilation keeping them in perfect condition. It will, therefore, be seen that this device renders migratory bee keeping entirely practicable because of the safety to the bees and the operatives and the rapidity with which the work may be done. It may also be mentioned that this device enables the employment of a large proportion of unskilled help in the apiary because of the safety from stings. Thus is removed one of the chief obstacles to keeping bees on a large scale. Further when the bees are removed from the cellar in the spring we frequently hear of trouble from their stinging operations and, in taking the first flight, getting confused and mixed with the bees of other hives, thus causing some colonies to become very strong and other so weak as to be worthless. It is obvious that by the use of this stand and bottom board the apiarist is enabled to place all the colonies of an apiary upon their summer stands and adjust them all for flight in the evening. The following day, or as soon thereafter as the bees can fly, they will all commence flying together and no confusion will result.

In the spring, when the colonies are at their lowest numerical strength, it is desirable to contract the entrance in order to conserve the heat, and at other seasons contraction is desirable if the colony is small or if the bees are disposed to rob. This bottom board allows of the greatest possible latitude in the regulation of the size of the entrance and hence is particularly valuable for this purpose.

Bees sometimes engage in robbing in such a wholesale way as to result in great loss of bees and honey. This device enables a perfect and effective control of them by means of the entrance to the hive, which may be entirely closed, as for cellar wintering, and the bees left confined until nightfall or until the danger of robbing is past. Also in hot climates the temperature frequently rises to such a degree as to melt down the combs in the hives, causing great loss to the apiarist. At such times bees are incited to rob and much damage has been occasioned in this way. Abundance of free ventilation, such as may be afforded by lowering the bottom board or removing it entirely, allowing the air to circulate freely through the sides and front and up through the hive, will afford the greatest relief possible in such an emergency.

The adjustments of this stand and bottom board are ample to meet the requirements of every apiarist and so far as adjustments to a bottom board are necessary, it may be said of this device, that they are universal. It is also simple in construction. Any one who has the ingenuity to assemble the parts of and put together, supers and hives can as easily assemble and construct these combined stands and bottom boards.

Buffalo, N. Y., Jan. 26, 1905.

THE LARVAL QUEEN.

Conditions Which Influence Its Development.

By John M. Davis.

I HAVE had my eye on that fellow, A. C. Miller, for several years—ever since he wrote in The American Bee-Keeper that "I say, (with a big I) " that Alley's method is the best," referring to rearing queens. You just give some of our prolific writers rope and time, and they will hang themselves, as the Deacon says "onbeknonst." See our dear Brother Miller now dangling at the end of a hemp. Got there himself and slipped off the scaffold. Wal, Wal, sich be the ways of frail humanity.

Probably he has reformed, but if so he ought to advise us of his change of base, and give some of us the pleasure of welcoming him into the fold.

In your January, 1905, issue page 3, he truthfully says: "In a normal colony a queen emerges into an atmosphere of warmth and high humidity, and has accessible an abundance of nutritious and stimulative food." Just right; and in a commercial queen yard, subject to all the changes of weather in Tennessee and north of this latitude, including Mr Alley's and Mr. Miller's locality, this cannot, as a rule, be obtained with a teacup of bees of any age.

In my humble opinion, based on many years of practical experience and close observation, when a queen emerges from the cell she is far from being a fully developed insect. She is a soft, mushy thing, easily mashed unless held in her cell by the bees. In afterswarming this never occurs in a commercial queen-rearing yard, where only one cell is placed in the nucleus These queens just from the cells need a high temperature, the humidity and nutritious food suggested by Brother Miller, to complete their development, and reduce this in any particular, and you retard the perfect development, and damage the insect just in proportion to the reduction. It may be possible to use these baby nuclei to mate virgin queens taken from cages at the mating stage, the cells having been built and larvae nurtured in full, strong colonies of bees, and the young queens remaining there four or five days receiving the benefits enumerated by Mr. Miller.

Were it feasible, I would prefer all my queens reared and mated in strong, full colonies of bees, but commercially this cannot be done owing to the expense; but if we approach this as near as possible we will, in my opinion, be rewarded by longer lived and hardier stock. In the extreme south where there are no cool nights, (if there be such a place), these small baby nuclei might be of some service, but I advise those not so favorably located to be sure that all their queens have the advantages Mr. Miller names in his last article.

Referring to Mr. Alley's method, I wish to say that we owe him much for the many valuable points he has given us in queen rearing; and in differing from him in some things I do not wish to be understood as condemning him. He is honest in his claims, but sees somewhat differently from some others, I doubt whether a better method of selecting material for queens can be found than his. This gives the insect royal food from the start, and if there is a difference, she gets the advantage of it. I practice his and Doolittle's methods of starting cells, as is most convenient at the time, and can see no difference in the queens produced, and am of the opinion that they are about of equal value, the only difference being the plan most convenient to the operator.

I wish to endorse Mr. Miller's statements regarding drones: Colonies holding breeding drones must be well fed during a dearth of honey if you have queens to mate.

I now have a somewhat unusual drone repository. In July I built up a trong colony keeping them queenless nd giving them all the drone brood hat I could find giving them worker rood as needed removing the queen ells as built, but from some source a ne queen got possession of the colony ate in October, and on the 18th of December drones were flying freely from this colony. When I found the queen she had capped worker brood, and as I had no use for the drones I left her to watch results. So far no dead drones have been brought out, and the weather not being favorable none have been flying. These bees evidently had drones so long that they recognize them as a necessity. (theory.)

Don't forget to see that your queens have the advantage of the warmth, high humidity, nutritious and stimulative food during development. This is important and cannot be well furnished by a teacup of bees in Tennessee or north of that latitude, during cool nights, or rainy weather. (experience).

Spring Hill, Tenn., Jan. 16, 1905.

THE EFFECT ON BEES OF COLD AND MOISTURE.

A Scientific Discussion Ably Presented.

By Frank W. Proctor.

THE QUESTION was lately raised in The Bee-Keeper: "Why is a freezing temperature so much more disastrous to bees confined in a cellar than it is to those wintering upon a summer stand?"

Every bee is a little furnace within which honey is transformed into heat. The bee also gets heat by radiation from substances around it, and also by induction if it touches any object warmer than itself. This heat is lost by radiation to the air and other things around it, and by conduction to any colder object with which it comes in contact. At any given movement the body temperature of a bee represents the balance between income and loss of heat in the manner desired. Bees can vary their rate of heat production by changing the amount of their food, but there is a limit to the rate at which they can make the transformation of honey into heat; and when it falls short of the rate of loss they must succumb.

The rate of radiation increases with the temperature of the radiating body, and is independent of the temperature of the environment. Accordingly bees do not lose heat in this manner any faster in cold weather than in warm. But the amount of heat they receive by radiation from surrounding matter depends upon its temperature, and the amount of heat received in this manner in winter is small. The net result, therefore, of loss and gain through radiation is a larger loss in cold weather than in warm.

The rate of loss of heat by conduction depends upon the nature of the conducting body and upon its temperature. The lower its temperature the faster any conductor will carry away the heat of a warmer body with which it is in contact. There are large ferences in conductivity of different substances. In winter bees are generally in contact only with the combs on which they cluster and the air which surrounds them. Beeswax is a poor conductor of heat, and for that reason makes an excellent resting place for bees in cold weather. If the combs were made of metal it would draw off the body heat of the bees so rapidly that they probably could not withstand low temperature, though well sheltered. Dry air is a relatively poor conductor of heat and as long as the air in the hive is dry and somewhat stagnant, large clusters of bees with plenty of food can withstand very cold weather. The conductivity of dry air, water, and silver are to each other respectively, as 1:25:19571. The conductivity of moist air seems not to have been accurately determined. The only statement the writer can find concerning its value is, that one investigator found that of steam to be higher than that of dry air. It is, however, a matter of common experience that in damp, foggy or rainy winter weather one is colder than on dry days, with the same temperature. This has been explained by excellent scientists as being due to the superior conducting power of water vapor in the air and in one's clothing. This seems reasonable though it is not a matter of course. Moist air is not necessarily dry air and water. It may be, and more often than otherwise is, dry air and vapor.

Water vapor is one of the several invisible gases of which the atmosphere is composed, and it is always present in the driest weather and in the most arid regions. Its chief difference of behavior from the other gases is that it becomes liquid at a considerably higher temperature than they do. It is produced by evaporation from water and ice at all temperatures, slowly at low temperatures, faster at high temperatures.

There is a definite amount of water vapor which can exist in the air at any moment, and this amount depends mainly upon the temperature. The higher the temperature the larger the quantity of vapor possible. For example, the maximum amount at 32 degrees Fahr. is 2.113 grains per cubic foot, at 110 degrees is 26.112 grains. When this limit is reached the vapor is said to be saturated, and any further addition of vapor results in changing some of it by condensation into water. If there is less than the maximum amount of vapor that can exist in the air at any moment, the degree of saturation is expressed in percentage, and this is called the relative humidity. For example, a relative humidity of per cent signifies that there is in the air 3-4 of the total amount that can exist at that temperature. Since the possible amount of vapor decreases with the temperature, any sudden cooling of the air increases its relative humidity. If, for example, the air at 45 degrees with a relative humidity of 75 per cent were cooled to 37 degrees, the vapor would be more than saturated and some of it turned to water.

If water vapor is a better conducto of heat than dry air, its conductivity must increase with the relative humidity: i. e., the nearer it approache saturation. When condensed int water it is twenty-five-fold a bette conductor of heat than dry air, as w have seen.

Cellars are **frequently so damp** t' at moderate temperatures, the air i nearly saturated and small reduction of temperature bring about condensation. The normal January temperature of Boston, Mass., is 27 degrees and the normal relative humidity 73. per cent. At this time of year in tha region the average temperature of tolerably tight cellar might be 40 degrees with an average relative humidity of 85 per cent to 90 per cent. (Th writer has just measured the conditions in his house-cellar, and finds th temperature to be 41 degrees, the relative humidity 92 per cent, and th dew point 40 degrees. That is to say if the temperature should fall one degree, dew would form in the cellar. The humidity of course depends upo its ventilation; but in cold location in order to keep cellars from freezin it is necessary to make them so tigh that the ventilation is poor. With a average cellar temperature of 40 degrees and a relative humidity of 8 per cent to 90 per cent, the air inside the hive, owing to the moisture exhaled by the bees, would likely be 9 per cent saturated and upwards. Th writer has no observations of hive temperatures in winter, but assuming i to be 60 degrees, a reduction of one degree would produce saturation and condensation of some of the vapor within the hive into water if the humidity were 95 per cent. The hive surfaces, the comb and the bodies of the bees would be wetter, and the heat of the bees would be drawn off so rapidly that they might not be able to make it good by a larger consumption of food. Even if they could, this enforced excessive consumption of food without opportunity for evacuation of the waste, might of itself seriously injure the bees if they did not succumb to the cold. The foregoing is based upon the assumption that the air in the cellar remains 90 per cent saturated. But, as we have seen, a fall of temperature of one degree in the cellar would produce saturation throughout the cellar, and before long the air within the hive would, by diffusion, seem saturated without any reduction of the temperature in the hive. Apparently the bees in a cellar-hive live ordinarily in an atmosphere of vapor that is almost saturated, and slight temperature falls within the cellar serve to completely saturate the hive air and condense the vapor.

Though for want of observations we have been obliged to take assumed values for temperatures within the hives, the relative humidity values are well within the truth. The writer rerepeatedly saw water and ice inside of a hive in his cellar last winter, and the comb and frames came out mouldy in he spring.

Meanwhile what would be the condition of a colony wintering outdoors? We saw that the average January temperature for Boston is 27 degrees and he relative humidity 73 per cent. The temperature would have to fall nearly o 23 degrees before the outdoor air would be so damp as that we have assumed for the cellar; viz., 90 per cent saturated. The superior dryness of this outside air assisted by better ventilation of the hive would reduce the humidity within the hive to say 80 per ent is against 95 per cent, that of the ellar hive. The temperature inside the utdoor hive would probably be a little lower on the average than that of the hive in the cellar. Assume it to be at 5 degrees or even 50 degrees. At 50 degrees the temperature would have o fall below 44 degrees to make the ir within the hive as damp as that in he cellar-hive at 59 degrees.

It matters not how much these asumed values for the hive interior may be in error. It is the relative values only between the hive in the cellar and the out-door hive that concern us here; and these assumed absolute values serve to illustrate what large differences of moisture there is likely to be any time between hives indoors and those outside; and also to show how much more the moisture in the hives is increased by the same temperature fall in the one case than in the other.

The outdoor hive has the further advantage that it can dry out on warm and dry days.

To sum up: a fall of temperature to the freezing point leaves the outdoor bees much more comfortable and better able to maintain their normal temperature than those in the cellar because (1) the air in the outdoor hives is much drier, and (2) because the bees outside have occasional opportunities for evacuating the waste arising from any excess of food they may have to consume during cold spells.

It does not follow, however, that bees may not be more comfortable in cellars than out of doors. By suitable ventilation many cellars can be made sufficiently dry, though this may require artificial heating.

The humidity of the air can be readily measured by any one with an inexpensive instrument called a sling psychrometer. It consists of two thermometers mounted side by side on a single frame, with a cord or handle at one end of the frame so that the instrument can be rotated or slung round and round in the air. The bulb of one of the thermometers is covered with a piece of muslin. When dry both thermometers read alike, but if the muslin be wetted the swinging of the instrument hastens the evaporation of the water on the muslin, and thereby cools the wet bulb, making that thermometer read lower than the other. From the difference of the readings of the two thermometers the percentage of saturation (relative humidity); the temperature at which saturation would occur if the temperature should fall (the dew point), and the number of grains of water vapor in a cubic foot of air (absolute humidity) can readily be obtained by any one, from tables constructed for this purpose.

Fairhaven, Mass., Dec. 19, 1904.

Langstroth used "blind staples" for spacing frames from each other and from the ends of the hive, putting the staples at the lower corners of the frames. He described this in 1865.

AMERICAN APICULTURE.

Specialization and Its Results.—Solving the Market Problem, Etc.

(Second Article.)

By J. E. Johnson.

THE COMMISSION man or honey dealer is between the devil and the deep sea. He is expected to get us a big price for our honey and sell it quick on a market where the supply and offerings are much greater than the demand. Not only so, but the supply is growing while demand is not. The organizing of local associations is a good thing and will enable bee-keepers to hold together and not come in competition with each other; and they might also do some advertising, but, if when they have succeeded in getting the price where it reasonably ought to be, nothing could be more discouraging than to have this exchange dump a carload of fine white honey on that market at a reduced price.

This is what some of the great specialists are already doing, and I know whereof I speak. These specialists, being joined together in a financial corporation, will be able to do collectively what they are now doing separately. Being specialists, they have not time to work up a trade, but will hunt up the ones we have worked up, and they can do this to a "frazzle." It is not a question of raising the price of honey with them, but to find a market for all their honey so they can go on specializing.

Our National Association is a grand association; and the local organizations are its branches which give it power; but a stock company is only for the specialist, and will be the instrument in the hands of the great for the ruination of the small bee-keepers. However, there are many more of the small bee-keepers and it is through the support of these that the bee-papers are able to exist. Only for them the National would be a slim affair. On the ordinary man rests the success of all enterprises; not only so but he furnishes the fleece for the corporations.

I have given a diagnosis of our diseased honey market and the cause of the disease; now for the cure:

It is easier to become sick than to be cured. First, and surest remedy is, KEEP LESS BEES. If this remedy is taken in large, and repeated doses, it will never fail to cure even cases of a chronic disorder.

The second and most practical remedy, is to advertise, and thereby cause a greater demand for honey. These are the only two remedies, according to the well-known rule that supply and demand governs prices. There are great numbers of wealthy people who have nearly everything on their table that is good to eat except honey. These people are worth looking after. They are well educated in every way, except to the real value of honey as a daily food. They have read repeatedly that comb honey is being manufactured, and syrup looks nice; they try some of that, don't like it, so they get along with butter for which they pay from 25 to 30 cents per pound fo good "creamery," that is guaranteed to be the genuine production of the cow.

Last year I wrote articles in ou home and country papers explaining the value of honey as a food. I then wrote a leaflet "Facts about Honey and Bees," and had it printed. I pu one in every case of honey and gav copies to people who had not bough honey. I also inclosed them in letters

I sold one case of No. 1 honey to prominent citizen of our town. I gav a leaflet to his wife when I delivere the honey and put one in the case. T that family I sold last year seven case of comb honey and one gallon of extracted. They got interested and h bought two cases to take to a brothe 30 miles away. In two or three weeks I got a letter from a lady who ha been to visit that brother and sample that honey. She wanted two cases o that same kind of honey. And so from that one case and my leaflets I now have three good customers This first man has already this yea taken five cases and is going to tak four cases to his brother and lad friend.

They want the nicest and pay me 1 cents per pound, and don't grumble bit. I am giving special attention t this kind of customers, and I hav several. I got them by advertising.

Then there is another kind of customers. When they read these leaflets they feel a gnawing in their stomachs for honey but they want it cheap Some of these would rather pay 1 cents for a ten-ounce section than t pay 15 cents for a 15 oz. section; so let them have their way, but I alway give them a few sections extra to mak them still more satisfied; and thus dispose of my No. 2 honey at nearly the same price. Some of these ar earning to like extracted honey at 10 cts. per pound. At 15 cts., it would have too much the flavor of money to them.

All customers bring back the empty cases, and fruit jars in which extracted honey is sold. I also find that with advertising I can sell quite a lot of extracted honey in eight-ounce glass tumblers at 10 cts., at the store, which clears me 14 cts. per lb. I believe if every bee-keeper will do as much advertising as I have done (of honey), there would be a much greater demand for honey. In fact honey would take a boom second only to the boomski of the Russian battleshipski; as they blow themselves up in the harbor of Port Arthuriski.

In every enterprise of the present day special attention is given to advertising. Many firms spend thousands of dollars and if they did not advertise constantly their business would utterly fail. Our business has competition and our competitors are doing all the advertising. We'll get it in the neck if we don't adopt up-to-date methods.

The National would do well to spend one-third of its surplus in judicious advertising; but each member should not forget his home paper. I feed my home paper editor on honey all he will eat and take my pay in advertising. He only uses 30 or 40 lbs. a year (aided by his wife), but we are both well satisfied and he sends me his paper free.

I have only a few cases left of 2,00 lbs., and all sold near home.

Try the advertising method and you can sell lots of honey without being a born honey peddler.

Williamsfield, Ill., Jan. 10, 1905.

REVIEW OF VOLUME XIV.

By Fred Stroschein.

PROPHETS have been assuring us of a mild winter, but, up to date, January 10 their predictions have not been fulfilled; for the weather has been about as severe as it was last winter, and we have to console ourselves with the idea that prophets, like other people;" are liable to make mistakes.

There being little work during the stormy days which we are having, I have been reviewing the pages of the American Bee-Keeper, which I often read hurriedly during the busy summer months. Mr. W. W. McNeal opens up the year with an article on comb building; wherein he says, "It is a well-known fact that black bees build more worker-comb, as a rule, than Italian." Now, last season I had a colony of black bees, which built combs from half-inch starters, nearly every cell of which was worker comb, was in a super of shallow frames and was therefore used for store purposes, yet some bee-keepers claim, that black as well as Italians will build drone-comb for storing honey.

"All that Doolittle discovered will be found in Huber's book, published over 100 years ago, writer Mr. John Hewitt, page 3, well, perhaps yes but Doolittle's way of discovering it has been of more value to us. That is why American apiarists give to Doolittle the honor of having first discovered how to make artificial cells, etc.

On the next page Mr. Hewitt further writes: "I never cut a cell out, all being hatched in the stocks they are reared in, being naturally protected and fed by the bees in their cells for two days at least." I am either such a terrible block-head, that I don't understand it, or else it is the peculiar traits of those Punic bees; for in this locality the bees will not feed the queens for two days in the cells, except at times, during after-swarming. If they did, there would be no need for cell protectors.

No such a thing as foul brood, black brood pickled brood or paralysis, so writes T. C. Hall about black bees, on page 54. Where did you get your strain of black bees, Mr. Hall? Many of us would like to get foul brood proof bees, but the strain of black bees we have in this part of the country are not proof against the malady; and if you would warrant your queens in this respect, I think you would have a booming queen trade.

I wonder if Mr. Greiner has tried the method of making paper boards from waste paper, as he describes on page 57? I was interested in this, so I tore up a lot of paper and covered it with water. The ladies of the house asked me what kind of a pudding I was going to make for supper. It never changed into a "sort of pudding," as described by that correspondent to the Leipziger Bienen Zeitung. It simply stayed wet paper. If Mr. Greiner can explain, I will be thankful.

Prevention of increase, by Mr. C. Theilman, page 111, reminds me of a queer method to prevent afterswarms, employed by a box-hive bee-keeper, years ago; dressed up his son sting-proof, who was then armed with a piece of brush to switch and strike in front of the hives.

The queen will not lay in combs of more than two-inch spacing, page 146. I am interested, for, if true, we could do away with the expensive queen excluders; unless such wide spacing has other objections.

Mr. Hewitt says Punic bees are proof against foul brood. Mr. Benton contradicts this on page 203. There is also other interesting reading in that article. I have read with interest, all that has been published in the American Bee-Keepers about Punic bees, and am more puzzled than ever to know what they are like. They are said to be such great collectors of propolis. Is the colony you own, "Mr. Editor," any worse in this respect than your other bees?

"Oh my!" a queen restrainer and entrance guard, on page 219. Mr. D. D. Alley must be keeping bees for pleasure, rather than profit. As I have said, I would rather do without any queen excluder than use an extra one.

Lenkoran or Persian bees, page 325. How many kinds of hive-bees are there any way? I would be interested to have Mr. Benton (or someone else) write an article on the different varieties of hive bees. But the last page of Volume XIV has been reached, and, in my review I have been struck with the fact that the American Bee-Keeper is the biggest "little" bee-paper published in the States. At least for size, and price, its like does not appear on my table.

Metz, Wis., Jan. 10, 1905.

BEE BOOKS, ANCIENT AND MODERN.

By Arthur C. Miller.

IT MAY surprise the uninitiated to know that of bee-books ancient and modern, there are several hundreds The earliest English books on the subject date back to about 1550, and some of those old ones are wonderfully fine. Later books were largely quotations from these with sometimes a little more of mysticism. Not until about 1800 was the first bee-book published in America, to be followed at varying intervals by others, little and big, most of them being largely copies of the English works, which had been extensively imported.

The translations of Reaumur's and of Huber's books gave an impetus to bee literature, opening wide the floodgates for a torrent of all sorts o claims and disputes. The beginnin of progressive bee-keeping may be sai to have been contemporaneous wit the issue of these books. From the until the appearance of Langstroth' book little advance was observable i bee-keeping as compared with th changes which followed. Aside fro the publication of Bevan's wonderfully comprehensive book, which appeared in England early in the century, n other books of consequence appeare until Langstroth's, in 1851.

The English have always been ahea of us in the material and mechanica details of their books. That classic "The Feminine Monarchie," was in it language, arrangement, indexing an cross-references ahead of anything w had up to recent times. Keys in th latter part of the eighteenth, an Huish, early in the nineteenth centur published interesting books, well printed and well illustrated, concerning th times.

Then came Bevan's fine book whic has served up to the present day a the basis of many of our America books. Later came Cheshire's maste piece and Cowan's smaller, but mos excellent book on the natural histor of the bee, not to mention other les important but interesting works.

In 1893 there was published in Lo don one of the best books for a begi ner in bee-keeping that I have see It is called "The Book of the Hone Bee" by Charles Harrison. The d scriptions and instructions are plai and to the point while the illustration mostly from fine photographs, are a fine as any that have yet appeared i a bee-book, and each one has close co nection with the text. The book c course treats of English hives an tools, but aside from that, is equall well adapted to novices here. It put most of our books sadly in the shad

But still we have some good book many with good material in them, bu few in which it is well set forth. On of our good ones is "Langstroth' Revised." It is exhaustive and show the infinite pains taken in the work c revision. A less pretentious volum but perhaps the most pleasing an satisfying, is that little gem "Fort Years Among the Bees."

For popular literature Miss Mo ley's books are entertaining, accurat and charmingly illustrated.

Notwithstanding these oases in th desert, we still have much to wish fo Perhaps some day we will have Amer an text books which are well written nd arranged, well illustrated, well inexed and in details of paper, type, resswork and binding will be a redit to our craft and well worth buyıg.

Providence, R. I., Feb. 16, 1905.

THE HONEY MARKETS OF GERMANY.

By F. Greiner.

UPON THE SOLICITATION of our editor I have made a strenuous effort to obtain honey-quoıtions from our foreign markets in lamburg, Amsterdam and other ports, ut my efforts have practically proved ıtile. After exchanging many letters ith different parties, I have come to ıe conclusion that to attempt busiess transactions with German ports, s regards sales of honey, is useless. ugars, syrups, adulterated honeys, c., are in the markets but pure honey not quoted anywhere. The bee urnals do not quote it, the city ıpers are silent on this point. Agriılltural papers do not mention honey. ne of my correspondents from Bern says this: "We have no regular ney market in Germany simply, beuse bees are not kept, honey is not oduced in that wholesale way as und in America. I aim to regularly ıve honey upon my table at eakfast and receive my supply om a small farm bee-keeper a little village near B., some miles from here. One has to on time though or the honey is sold t, for there is but little of it to be d. The honey obtainable is of arly straw-color, perhaps a little hter in color and is extracted. The ney is sent me in glass fruit cans ıich I have to furnish myself. I pay e producer 25 cents per pound to ıich must be added five cents transrtation charges. Of course I purase only the very best article procurle, of which but little is produced. e inferior grades from heath, alfa, etc., come cheaper but the retails have asked 37 cents for clear unulterated extracted honey in glass."

ly correspondent continuing says: "he facilities of transportation from United States must be wonderly favorable. American apples for tance are brought here in great, id, shiploads and are sold on the eets by peddlers at 2 1-2 cents per nd, while our own apples, (we have no extensive orchards,) bring from 4 to 6 cents per pound. The transport of fruits from the farms to the cities here seems to be difficult and expensive, so that California and other American products can be sold here for less money than our own."

Some years ago I shipped a small quantity of honey to some friends in Germany. The honey arrived in good shape but it was an expensive experiment which we did not care to repeat. The honey did not prove to be nearly so good as the genuine German product, at least it was not liked as well. However, this might have been owing to the individual taste. I cannot think, but that our best clover honey is equal to any other honey produced anywhere; and, considering the price obtainable, we ought to be able to supply consumers in Germany to our profit.

Naples, N. Y., Jan., 13, 1905.

OUR
CORRESPONDENTS

Etiwanda, Calif., Feb. 12, 1905.

Editor American Bee-Keeper:

Herewith find money order for 50c to pay up my subscription to American Bee-Keeper for one year.

The letters now being published in American Bee-Keeper re Punic bees are getting very interesting. I received from Mr. Hewitt a fertile Punic queen last fall but too late for the best honey flow. I introduced her to a colony of native bees. Now they are nearly all Punic's. Thy are the easiest bees to handle that I ever saw, and they are also excellent workers. I shall give them a fair trial this year, then will report how they do. Things look fine for a good honey flow this year. Over ten inches of rain since July 1, 1904. The sage is looking in fine condition.

Yours truly
O. F. Martin.

William, Mo., January, 28, 1905.

Editor American Bee-Keeper:

I desire to ask you a question regarding bees:

I shoveled the snow up against my hives leaving the entrances open and the bees could hardly be heard, but a minute after the snow was piled around them, I could hear the noise at a few feet distant. It was not because I jarred the hive or disturbed them in any way, as I tried it several times, and was very careful that the loose and soft snow should not be heard inside of the hive, and afterwards the snow would melt an inch from the hive in zero weather. Hives with no bees in would be the same as when the snow was put there.

Is this snow injurious to bees? We have hard winds in winter.

K. M. Waldron.

There is no doubt as to the disturbance of the bees being a result of your work near the hive, notwithstanding the great care with which you performed the operation. Bees are extremely sensitive in such instances; and it would be an impossibility to bank them up, as stated, without imparting to them a knowledge of the fact that something unusual was going on outside. The banking of snow about the hive is not injurious to bees. On the contrary, it is conceded to be a protection that is beneficial. The heat generated by a healthy colony would doubtless cause the snow to melt away from immediate contact with the hive, as stated. In such a position, however, a colony would be cozily protected from chilling winds while the snowbank remained.—Editor.

ALFALFA GROWING.

In the past several years there has been a marked tendency on the part of local sugar planters to a more general growing of alfalfa, they feeding the hay to their work stock perhaps some six or seven months in the year, dependent on the number of cuttings sesured, and the Sugar Planters' Journal has all along lent encouragement to new ventures in alfalfa sowings, feeling assured that where alfalfa is successfully grown it will thereafter be a regular provider for the stable, for there is no hay better adapted to work stock generally. A prejudice existed several years ago against the feeding of alfalfa to horses, but experiments made at the Utah experiment station showed the prejudice to be without foundation, for the investigation, covering months, during which the teams did the same work, resulted in an unqualified victory for alfalfa against timothy hay.

In all the sugar parishes of Louisiana, alfalfa is annually planted, though not on every large plantation by an means. Some planters have given it trial on land unsuited to its growtl or on good land imperfectly prepare and because success was not attaine the first time, have not tried it agai

On the other hand, there are sug planters who have been planting alfa fa for years, and who expect to kee up the practice indefinitely ev though, as they say, it requires th best land. It may be stated that, as a average, alfalfa in the sugar distric requires re-planting each year, owin to other grasses crowding it out, bu the fact remains that with three to si cuttings annually it pays to sow eac year.

One of our upper coast readers h a patch of alfalfa that is four yea old, and we consider the reason l has bee nable to keep it so long is h careful manner of seedbed preparatio He gets the best results when plan ing in black or buck-shot soil whic has a sandy subsoil and good drai age, finding that better for alfalfa th either mixed or sand lands. He sov in October, a half bushel of seed the acre, in land covered during t summer with a thick growth of p vines. With soil of this charact only, it is his custom, after taking the pea vines, to plow, harrow, plc again, roll, and finally re-harrow then being in fine condition to recei the alfalfa seed. The seed are sow broadcast, and swept in the soil by dragging tree branch, he finding tl preferable to harrowing, for the latt course is liable to put the seed t deep for quick gesrmination. bein gthat pursued by one of our mc

The above outline of alfalfa planti successful planters, it may with pro be followed by those who have n yet gone into its raising or who ha been unsuccessful in past attempts. Sugar Planters' Journal.

Loose snow over the hives wint ing out of doors affords protectic but it should not be allowed to "cru near the entrances, or suffocation m result.

"Bees do not consume most hon during extreme cold weather, but d ing intervals of milder temperatur An old statement which is a trifle m leading.

THE

Bee-Keeping World

Staff Contributors: F. GREINER and ADRIAN GETAZ.

Contributions to this Department are solicited from all quarters of the earth.

AUSTRIA.

F. Steigel describes his improved exractor in Bienen Vater about as folows. "The comb pockets are divided y metal sheets and extra screens so s to form really two pockets each, aking two combs one behind the other nstead of one comb as in the present xtractor. By this arrangement eight ombs may be extracted instead of four t one operation, thus saving in labor. 'he extractor could even be so arrangd as to take three combs for each ocket in the same manner, thus inreasing its capacity threefold." The nventor is preparing to have this exractor patented in all countries. It is question with the writer of this hether such an extractor would be etter than a reversible four-frame 'owan. He would consider the seprate turning of the combs a great disdvantage. I believe W. L. Coggshall as used a similar arrangement to that f Steigel for many years, and as to rocuring a patent on it here in merica, he might be a little too late.

A. Kamprath conducts a questionox in the Bienen Vater. The first uestion relates to milk as a stimulus r bees. Says some fine results have een obtained feeding milk in small oses in connection with sugar, esecially where there was a lack of poln; but on the whole he is not in vor of any substitute; thinks honey nd pollen combs are good enough; ncapping such, and sprinkling with t water, giving them to the bees in e evening, has given him very good sults.

A farmer's hive used commonly in any districts of Austria consists of a allow, long box, nearly 32 inches ng, not quite 10 inches wide and 8 ches high. The ends are movable. ch hives were corded up like stoveood and kept under sheds. These me hives are being improved by aking the combs movable, which is a step in advance. The old method of harvesting the honey was a simple one. A small quantity of gunpowder was exploded inside of a hive; the contents, bees, broood and combs—were emptied into a kettle and by application of heat the honey was separated from the wax, etc., not a very appetizing product. With the improved hive, the honey may be removed from the rear. The brood may be easily reached from the front end.

A recipe for an ointment made of pinepitch, honey and beeswax, each 20 grams, mixed with 350 grams of fresh lard, is recommended for collar boils, in Bienen-Vater, Vienna.

GERMANY.

Freudenstein says, in B. V., that the heath bee of Germany is a degenerated bee produced by long continued mismanagement on the part of the beekeepers. He says they always take up the heavy colonies (such as have not cast swarms) and keep the swarms over. He says, further, nature would weed out all unprofitable swarms but for the bee-keeper who steps in between and feeds up those swarms that would die out or should be taken up.

Freudenstein offers a reward of 1,000 marks or about $250 for the introduction of a profitable red clover variety with short enough blossoms so that our common bees can reach the honey. More particulars are to be given later in a number of his journal.

It will be remembered that Freudenstein is about the only person in Germany who has given the matter of long-tongued bees any consideration. As generally considered the red clover bees are an American humbug. As I take it, Freudenstein is not blowing the horn for the long-tongued American race but is simply experimenting to find out whether or not there is anything to it.

A certain well known comb foundation manufacturer in Germany has been heavily fined for selling foundation as pure when it was made of a mixture of 75 per cent. parraffine and 25 per cent. of beeswax.—Deuche Bienenzucht.

A wax-trust has been formed in Germany. The members have agreed upon a certain price to be paid for beeswax (what this price is the writer does not know but he observes that wax is high compared with American prices. Some producers received 70 cents per pound.)

Dark colored grape wines are used in Germany to give color to rum and whisky, and I. M. Gosch says in Schlesw. Holst. Bztg. that mitheglin answers the same purpose and advises beekeepers to bring this to the notice of distilleries.

There seems to be a difference of ouinion whether bees should be wintered warm or cold. Rundschauer Gosch. claims the difference is principally in not having the same conception of the term, "warm."—Schlesw. Holst. Bztg.

A reader of the same bee journal wants to know what he can do to make his honey granulate quickly. He is advised to put his honey into a barrel and cover it tightly; every second or third day give the honey a good stirring. So treated, honey will nicely crystalize uniformly all the way through. When granulation has well begun, draw off and fill in cans and glasses.

GERMAN SOUTHWEST AFRICA.

This part of the world is not the most favored spot for growing crops or beekeeping. However, irrigation can make a garden of Eden out of it, as is shown by missionaries, and when this is accomplished bee-keeping can be made to pay. F. Judt has established an apiary in Hoaxanas which yields good crops of fine honey. The hives used by Judt are of the German styles, but it would seem that American hives might be used to better advantage in such a warm climate, of which Ernst Zirrgiebel says that the days in winter are as warm as summer days in Germany. Irrigation makes it possible to grow all tropical plants as well as semi-tropical and vegetables of all descriptions. In the line of fruits, even apples, pears and peaches are grown. Grapes become as sweet as the bes raisins, Dates and figs grow abundantly. Just thinks he has evidenc that his bees went eight miles afte honey at certain times, when there wa nothing to be obtained near by.—Deutsche Imker.

SWITZERLAND.

Queen breeders in Switzerland hav practically given up the Doolittle method. Only two use the Doolittle cell cups, but have queenless colonies rea the queens.

Dr. Brunnich, claims in Schweiz Bztg., that his late experiments prov that drones from virgin queens ar virile, in every way the equal of drone from fertilized or normal mothers. H describes the details of the experiment which, to the mind of the writer, fail to bring the absolute proof.

ASIA MINOR.

According to the "Bulletin de l Chamber de Commerce de Smyrna beeswax is produced in considerabl quantities in Asia Minor and exporte from Smyrna to different parts o France, Italy, Austria and particula ly Russia. Many bees are kept in th calm valley of the interior, and a so of bee fever is raging among the natives. Acording to statistics of th last five years, over 400,000 pounds o honey is exported yearly fro Smyrna. It is said that the wax produced is of the very best quality, th bee-keepers taking great pains to pur fy it. It is exported packed in doubl sacks of 200 pounds each.—Bienen Vater.

FRANCE.

Mr. Moulin reports that in the province where he lives, most of the hive are yet straw. That is nothing new but what might be worth noting is th fact that what we would call the supers are often placed under the broo nest rather than above.—L'Apiculteu

Mr. Brochet says that if som bruised leaves of leek are rubbed o the hands the bees will not stin them.—L'Apiculteur.

Mr. Steigel advises apiculturists t use rain water when rendering wax The spring or well water very ofte contains some iron which will invariably darken the wax.—L'Apiculteur.

PUBLISHED MONTHLY.
'HE W. T. FALCONER MANFG. Co
PROPRIETORS.
H. E. HILL, - EDITOR,
FORT PIERCE, FLA.

Terms.

Fifty cents a year in advance; 2 copies 85 ents; 3 copies $1.20; all to be sent to one ostoffice.

Postage prepaid in the United States and 'anada; 10 cents extra to all countries in the ostal union, and 20 cents extra to all other ountries.

Advertising Rates.

Fifteen cents per line, 9 words; $2.00 per ıch. Five per cent. discount for two inserons; seven per cent. for three insertions; wenty per cent. for twelve insertions.

Advertisements must be received on or beɔre the 15th of each month to insure inseron in the month following.

Matters relating in any way to business ıould invariably be addressed to
THE AMERICAN BEE-KEEPER,
Falconer, N. Y.

Articles for publication or letters exclus' ɔr the editorial department may be addressed
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Editorial.

Mr. Adrian Getaz, who reviews the rench bee papers for us, says that in rance the American Bee-Keeper is ore frequently quoted than all other merican bee journals combined. Vell. the sagacity of the French, you ıow, is admitted everywhere.

Mr. E. E. Wilson, Dabney, Ark., ys that of all the bee papers he kes, none have given him so much ;ht upon the subject of bee-keeping the American Bee-Keeper. We are ad to know our efforts are appreciat-.

A recent letter from President W. Marks, of the New York State Asɔciation of Bee-Keepers' Societies, ıparts this very gratifying informaɔn: "I will take this opportunity to say that apicultural affairs in this state are in a very satisfactory condition. Our 'foul brood,' and 'bogus honey' laws, backed by a determination to enforce them, have proven all that could be desired."

"Notes and Comments," in the Canadian Bee Journal, is presided over by a York County Bee-Keeper, who is, evidently, a capable apiarist as well as an entertaining writer. He objects, however, to the language used in one department of a certain American bee paper, and says it borders on the barroom type of talk. If our York Country friend intends this for a slap at Deacon Hardscrabble, we advise him to keep a light burning in his room hereafter, unless his nerves are in excellent trim. The Deacon intimates that he has a little score to settle over in Canada; and may be this is it. We all make mistakes sometimes, and York County Bee-Keeper makes a big one in the same issue of the Canadian Bee Journal when he credits the article, "A Popular Fallacy," to "A. B. K."

FACTIONS OF THE CRAFT.

Over in Ireland the federated bee-keepers have for years been doing all possible to secure protective foul brood laws. English bee-keepers are equally desirous of the same thing upon their Island. Ireland has contended that cordial co-operation between the two countries was important, if the desired ends were to be accomplished. The English society thinks Ireland is "too small potatoes" to mix up with such an important organization as the British Bee-Keepers' Association in any such proposition, and proposes to "go it alone." The Irish regard the English attitude as a snub, which is formally resented, and the resentment is, in turn, officially turned down as "a misrepresentation" which it "feels bound to defend." Therefore, there is likely to result an estrangement between two important societies which should be working hand in hand for the welfare of apiarian interests in the allied countries.

It has been proposed, by members of the National Bee-Keepers' Association, that when a serious break occurred in its ranks, it would be by a division of the democrats and the aristocrats of the organization. It looks as if our brethren over the sea may have already reached this condition of affairs.

THE CLIMATE AND HONEY.

In J. A. Green's department, "Bee-Keeping Among the Rockies," in Gleanings, he says: "It seems that there are localities in Texas where basswood is abundant. I have been told this by those who have been there and say that there are large tracts of country covered with it. Reports at the Texas convention indicate that it yields honey just as freely as in the Northern States. It appears to be nice honey, too. Several years ago, some of the Canadians argued that, the further north basswood honey was produced the better was its quality, and they claimed superiority for their product over that produced in the States on that account. I wonder if the Canucks did not manufacture that theory out of 'whole cloth.'"

That the "Canucks" had ever made this claim, we were not aware, but we have not forgotten that the records of the Omaha convention, in 1898, credit Mr. Whitcomb, of Nebraska, with this statement: "Climate has much to do with the flavor of honey; a warm climate producing that of inferior quality, and a colder climate producing honey of a much better flavor."

Mr. Whitcomb has persistently ignored all requests for some explanation as to the grounds upon which such an assertion is based.

It is remarkable how freely and fluently some persons pour forth their wisdom to the world, until someone has the audacity to question a point, and then, as if by magic, become as eternally and as oppressively silent as an Egyptian tomb.

THE HEWITT-BENTON DISCUSSION.

No subject that has been introduced through the American Bee-Keeper in years, has been productive of more widespread interest, than that of Punic bees. It is a matter of regret that the subject might not have been pursued in our columns, until we should all know something definite, in regard to the facts and details in connection therewith; but Mr. Hewitt's response to Prof. Benton's article in our issue for October, 1904, was found unavailable, for various reasons. Mr. Hewitt feels that we have inflicted upon him a grave injustice by publishing Prof. Benton's attack, and withholding his reply, which deals very minutely with the points brought forward by Mr. Benton.

The American Bee-Keeper, of a
things, desires to be fair with ever
contributor, regardless of any ill fee
ing which such a course may incu
and if any correspondent fails to se
cure an impartial hearing through ou
columns, it is because of his own fai
ure to conform to the established rule
of this journal.

However, it is suggested that, a
tending to refute Prof. Benton's fin
charge in the article referred to, ther
can be no reasonable objection t
quoting his own words, as published i
the British Bee Journal for Novemb
15, 1883, page 259, as follows:

MR. JOHN HEWITT.

"Again, in 1882, from Beyrout, Syr
larger numbers of queens were sent
various countries of Europe, and t
success of sending by mail on su
long sea-voyages further demonstr
ed. No other person has aided me
much in determining the conditio
necessary to success, the exact caus
in case of failure, etc., nor given me
many valuable suggestions in regard
this matter as the Sheffield gentlema
whose name I have already mentione
Mr. John Hewitt. Had others given
prompt, exact and full reports rega
ing queens mailed to them. I wo
have been much less time determini
upon the best method of packing."

Being the most amiable bees he h
ever owned. good honey gatherers, a
very prolific, the editor of The B

Keeper has naturally felt an interest the Punics, and has wished that hers might decide to try them. ence, the subject has been given considerable space in our columns; and we gret that personal differences can- ot be adjusted in some way that will ermit practical tests of this race in merica at this time.

PUNICS.

In response to an inquiry, Editor oot, in Gleanings, says: "We tested e so-called Punic bees a few years o. We did not discover that they d any quality that was in any way perior to any of the bees in this untry. They were fearful propoliz- s, bad about stinging, and, in my inion, they were not even as good es for general use as the mmon black bees of this country. ey were very much inferior to Ital- ns; and, from reports I have read of em since, I should not think any one uld be wise in introducing them into s yard. A few Punic drones might ke a bad mix-up in the stock that uld not easily be eradicated."

Mr. Root is not very explicit, as to e extent of the test which was there en these bees. If they have been roughly tested in America we uld like very much to obtain specif- information as to results. From r own limited experience, with one re colony of Punics, we think very ferently. Excepting the Caucasian ony Mr. J. B. Hall had years ago en the writer was with him in Can- a, our Punics are the gentlest bees have ever handled anywhere. We ve manipulated the colony, perhaps, undred times, sometimes with a lit- and sometimes with no smoke at and they have never offered once sting. Their crosses, however, are so amiable as the parent colony.

PREJUDICE.

Ve sometimes wonder if bee-keepers not unduly prejudiced against new ngs which might prove beneficial them.

Ve have heard it asserted that an apping-machine could never be de successful. Possibly it might ; but the problem hardly seems e difficult or intricate than a type- ing machine, the telephone or wire- telegraphy.

rtificial honeycomb has never been de, but we should not care to go on ord, as have so many others, as say- that " it cannot and will not ever be accomplished." It's hard to tell what the twentieth century may bring forth.

Perhaps the primitive man, who had just completed an elegant new "dug-out" canoe with which to navigate the streams of his neighborhood, may have thought he had accomplished the acme of perfection in seagoing craft. There have been some improvements in this line since, however.

Very many bee-keepers feel sure that in the Italian bee they have quite all the excellent qualities that may be obtained in one race. Perhaps they have but it is hardly the part of wisdom to be so complaisant as to settle down in perfect contentment with present conditions in any line. It's better to keep striving for improvement. Such efforts are nearly always rewarded with success of greater or less degree. If not in dollars and cents, greater knowledge of facts come to compensate the work.

In this connection we are reminded of a recent instance: One of the veteran bee-keepers wrote to approve Prof. Benton's article in regard to Punic bees, which he denounced. The writer of this is always alert for information upon any apiarian subject, and especially upon that which pertains to the improvement of stock and the bettering of market conditions. He, therefore, felt sure that the correspondent, who thought so favorably of Prof. Benton's criticism, must have some knowledge of Punics, and accordingly wrote at once for information. This is the response:

"With regard to Punic bees I know nothing, but I frankly confess I have no faith in them."

This is prejudice, pure and simple. This journal is not advocating Punic bees, nor, indeed, any particular race. However, it is a noteworthy fact that some persons have no faith in anything with which they are not familiar; and such persons are usually several years behind the procession as a result of their extraordinary precaution against imposition. We are at a loss to understand why anyone, wholly without experience or knowledge upon a certain subject, should feel moved to express their approval or disapproval thereof. Varying degrees of faith, or its entire absence, have no influence upon the quality of goods. If a man has tried a certain brand of goods and finds it bad, or good then an expression of his opinion is one of some value; otherwise, it is worthless.

For years this journal has stood quite, or almost alone in its advocacy of the importation and thorough testing of Apis dorsata in America. There is but one way to actually know what the result would be, and that is by practical test. We learn that the government may take hold of this matter under the direction of the Department of Agriculture, at an early date, and we are gratified to have the prospect of some real information upon the subject. Promoters of the enterprise at Washington, chief of whom is, perhaps, Prof. Benton himself, are deserving of the highest praise. Now listen for "sparrows."

No, fellow bee-keeper, let us not decry progression. Advancement is the order of the day. Don't discourage those who are enterprising, even if your personal preference is for staying in the rut. Actual knowledge comes to the investigator. Occasional failures are preferable to doing nothing. Notwithstanding the boasted achievements of apiculture, it is far from being at the head of the list among the arts or trades of the world. Activity—active minds and active muscles—is our greatest need. If we are disinclined to participate ourselves, let us at least, appreciate the efforts of those who will, and are doing something in beedom.

THEY KNOW US NOW.

Several years ago the editor of a contemporary bee journal, wrote to a contributor with whom the American Bee-Keeper had arranged for a series of articles, and endeavored to impress upon him a realization of the fact (?) that it was a shameful waste of talent for him to be writing for any other than one of the only (?) three bee journals of America that commanded recognition. Of course, the young journals, to which class the American Bee-Keeper belonged, could not long survive in competition with the three established and leading lights in the realm of apiarian journalism, and such good stuff, as our contributor was writing for The Bee-keeper, ought to appear in journals of wider circulation, to say the least. It really ought to be published only in the one great organ of beedom, but, it appeared, the sin would not be unpardonable if it should be published in either of two others.

In point of quality, The Bee-Keeper would invite a comparison of matter published this month, with that of any issue gotten out by our contempora
during the last year or so. We shou
not mind comparing subscription lis
either.

If not at that time, the Americ
Bee-Keeper believes it may now just
claim universal recognition, and a
gree of popularity, both in Ameri
and in foreign countries, which co
pares favorably with that of any
our esteemed coworkers.

Much credit is due our correspor
ents for this gratifying condition
affairs; and the credit is acknowled
ed with gratitude.

FROM THE FARM PAPERS.

The American Bee-Keeper has
casionally called attention to the
surdity and ludicrousness which ch
acterize the "average" apiarian
formation put forth by the gene
agricultural press of the United Stat
Generally speaking, it is unsafe for
beginner to adopt information fr
this source, owing to the uncertai
of its practicability. The editor of
Modern Farmer and Busy Bee, who
a thoroughly practical and experien
apiarist, is an adept at detecting th
weaknesses of our agricultural frien
and at sifting their wisdom (?) T
following are examples:

FEEDING SYRUP IN JANUAR

Here is what we find in the Ja
ary fourth issue of Coleman's Ru
World:

"Feed the bees that lack natu
stores at this season. A syrup of gr
ulated sugar and water, about the c
sistency of thin honey, should be
as fast as the bees can store it away

"To winter well a queen should
be over two years old."

The fellow, who is fool enough
follow this advice, will not have a
bees to feed very long. Wonder
that 2-year-old queen should h
short, crumpled horns, or long on
like a Texas steer? What donk
some of these agricultural bee writ
make of themselves!

SUNK TEN THOUSAND DOLLA IN BEES.

A writer, in the Farmer's Voice,
speaking about agricultural failur
says: "We have walked over a fa
in Kentucky where $10,000 was su
in bee keeping by a man who co
command $2,400 per year in an offic
We would be glad to have our ex
lent exchange tell us where that fa
is located, and where the man w

mmitted this unparalleled piece of
lly is. If he is dead, we want to see
at a proper monument is erected
er his grave. If he is alive, we want
see that the "fool-killer" does not
me his way, for fear of what
ght happen. To be frank, we shall
ve to put this down as another "fish
ry," unless our neighbor can pro-
ce the facts and figures and point
t the man. We doubt if any man in
entucky ever had one-fourth that
m invested in the bee business,
ch less lost it all before he dis-
vered he was in a business about
hich he knew nothing.

FFERSON COUNTY, N. Y., BEE-KEEPERS' CONVENTION.

The Jefferson County Bee-keepers'
ciety held its annual meeting at
atertown, N. Y., January 17th. Ow-
i to cold, stormy weather and bad
ads, the attendance was not very
ge, but, if enthusiasm counts for
ything, the meeting was a success.
e illustrated lecture in the evening,
General Manager France and
ber Root, was worthy of a large
dience and was appreciated by those
o attended. Glad to state that we or-
nized the St. Lawrence County Bee-
eper's Society at this meeting, and
added 14 new members to our list.
was voted, to have the paper, by A.
French, Black River, N. Y., Route,
ow to Successfully Run an Out-
iary for Comb Honey," published in
l.

Geo. B. Howe, Sec.
Black River, N. Y.

When writing for rates and adver-
t ng information, under date of Feb-
ry 12, Mr. Thos. Worthington,
ota, Miss., who has for some time
l a card in our Queen Directory,
s: "I find that it pays to advertise
h you." A trial of The Bee-Keeper
ost always brings such expressions
m advertisers. That's the way to
d out."

---

nother bee season is at our thresh-
. "What shall the harvest be?"
e "man and management" are fac-
s which enter into a solution of the
oblem, as well as other conditions.
ve you laid your plans?

When the bees have shown up, and
number of colonies may be ascer-
ned, the necessary stock of supplies
the season should be decided upon
l secured accordingly. The time for
eparation is not long.

The result of the National election is yet unknown, probably owing to the illness of Secretary Brodbeck, of Los Angeles.

Honey and Beeswax Market.

Chicago, Feb. 8—The trade in honey is still below the normal in volume with prices unchanged except that the pressure on the part of holders to realize is more urgent. Fancy white comb honey 12½c. at 13c., No. 1, 12c., off grades 10c. at 11c. Extracted white 6c. at 7c., according to flavor, quality and package. Anything off is lower, amber grades 5½c. at 6½c. Beeswax 30c. if clean and good color.

R. A. Burnett & Co.,
199 So. Water St.

New York, Jan. 16.—There is a plentiful supply of honey of all grades, with a dull demand and prices declining. We quote our market today: Comb, 9 to 14c. per pond, according to quality. Extracted, 5 to 6½c. Beeswax, 29c.

Hildreth & Segelken.

Denver, Jan. 18.—The demand is light but some signs of improvement. We quote our market today. Comb, No. 1, white, per case, $2.50. No. 2. $2.25. Extracted, 6 3-4 to 7 1-2c. Beeswax, 22 to 25c.

Colorado Honey Producers' Ass'n.
1440 Market St.

Cincinnati, Feb. 17.—The demand for honey at the present time is like business—frozen. Nevertheless, we are looking forward to a brighter future. We quote amber extracted in barrels and cans at 6 and 6½c. respectively. White clover at 7 to 8c. The conditions of the comb market are aught but encouraging, owing to the vast amount of Western comb honey, that is being consigned at almost any price. We quote fancy white comb honey at 12 to 13c., with but few sales. Beeswax 27c.

The Fred W. Muth Co.
No. 51 Walnut St.

Boston, Feb. 8.—Sales of honey still continue light, principally on account of the extreme cold weather which we are having. On account of the large stocks in hand, prices that we have quoted are shaded in round lots. Fancy white, 15 to 16c.; A 1, 15c. No. 1, 14c.; extracted from 6 to 7c., as to quality.

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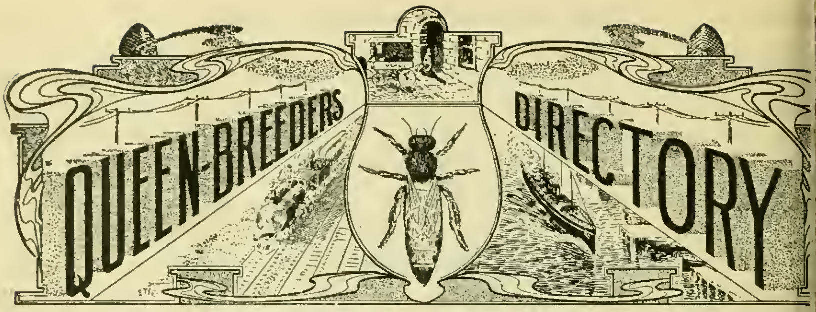

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give us your trade. We sell Italians, Gol
and Carniolans at 75c for untested and $1.0
tested. Prices on quantities and nuclei upon
plication. John W. Pharr, Berclair, Texas. Ja

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quaranteed. Correspondence in Eng
French, German and Spanish. Shipment
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11-Feb. tf

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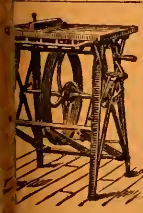

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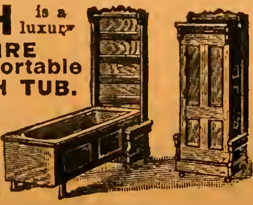

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Vol. XV APRIL, 1905. No. 4

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By O. C. Fuller.

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GENERAL MANAGER France says the Pennsylvania State Convention was a good one. I arise to confirm that statement, and will add that the bee-keepers of Pennsylvania who did not attend this meeting, missed an apicultural treat that was well worth the expense of attending. Much credit is due the officers of the Pennsylvania Bee-Keepers' Association who by their earnest labor have made the convention a success. The bee-keepers of Pennsylvania do not do things by halves, and with such men as Pres. Surface, Sec. Woods and the efficient executive committee at its head, the association is bound to forge forward and bring our State forward to the place she ought to occupy in the list of honey producing states.

How to Run a Bee Paper.

Mr. Editor, your suggestion in an editorial in regard to lengthy articles just suits me. The average bee-keeper does not care to peruse a whole page or perhaps two pages of a journal in order to get a single fact out of a long-winded article, drawn out as long as a Waterbury watch spring. It is plain facts that the bee-keeper wants, not a lot of flowery and unimportant words to chaw over and wear out his brain in the attempt to discover their meaning. Another suggestion might be offered. That less scientific and more practical matter be printed in the bee-papers. We see some very fine scientific articles in some of the bee papers—in fact so fine that we can hardly comprehend their meaning, and from which the beginner gets but very little information, and about which the average bee-keeper cares very little. Of course these scientific articles may be read and enjoyed by many advanced bee-keepers, but we can not close our eyes to the fact that many beginners are following in the wake of the advanced bee-keepers, and it is those that need more practical information. Science is all right in its place, and we must have some of it in bee-keeping, but let us have a good sprinkling of practical information mixed in. What we need is something that will aid us in handling our bees to the best advantage in honey getting. That is what we are most interested in after all.

Burlap for the Smoker.

The question is asked: "What is that phosphate sacking, that is recommended for smoker fuel?" I believe I can answer that question, as I live right in a phosphate sack region. It is simply burlap made into sacks, in which commercial fertilizers are sold to the farmers, and I know of no better material for smoker fuel, providing it is properly prepared. I get all that I want of it from the farmers, for the asking. To prepare them for fuel, the sacks should be washed, to cleanse them of the acid and lime used in the fertilizer, and some of the sacks are treated with some kind of chemical to prevent the acid from destroying them. Such sacks will not burn, unless thoroughly washed. Soaking them in a running stream of water for several hours and then giving them a good sousing, and hanging up to dry, is a good way to cleanse them. They should be cut into strips about two feet long and four or five inches wide and rolled up into rolls, when they are ready for use. These cartiridges work best in a muzzle-loading smoker. Light one end and if the wind is blowing, hold the lighted end toward the wind, and in a few seconds you will have a good fire going, then just stick it into your smoker, fire end down, close your smoker and you are ready for business with a volume of smoke that will put a whole regiment of Jersey mosquitoes out of commission. Soaking in a solution of saltpetre is not necessary.

Not Foul Brood.

General Manager France and his sample of foul brood, at the Pennsylvania State Convention has shown that the disease among the bees of Pennsylvania is not foul brood. Be it black brood, or pickled brood, or some other new disease, the fact remains that it is very contagious and much to be feared, and that it is much more rapid in its work of destruction than the old-fashioned foul brood, and that it will not readily yield to the treatment given for this class of diseases.

A Handy Cage.

A good cage for caging a clipped queen, when a swarm issues, is made by boring a two-inch hole through a block of wood, 2 3-4x3 3-4x1 inch to one side of which a piece of wire-cloth is tacked, to cover the hole, and the other side covered with a tin cover, made to slide in grooves similar to the Peet cage cover. To cage the queen, the cover is removed, and the cage placed over the queen. When the queen will come up and cling to the wire-cloth, in her efforts to get away; when the cover can be replaced and the cage set on the bottom board, and leaned up against the hive front awaiting the return of the swarm. I paint the tin cover white, and if the sun is shining very hot against the hive, I turn the cover side out, or facing the sun, and thus protect the queen from the heat and avoid taking chances of having the queen roasted to death, when a swarm remains clustered a long time before returning.

Color of Honey Affected by Condition.

Mr. Hasty, in American Bee Journal, is afraid that somebody is going to "shoot off his mouth" and say that late honey is always more or less dark. No use storing away ammunition t shoot back at him. Forestall that movement, and shoot at him at once and take him unawares, like the lightning did the toad, by telling him tha climatic conditions and the characte of the soil have something to do wit the color of honey. Even clover hone varies in different places and differen seasons. I have before me, just now honey gathered from goldenrod an asters, that is as white as clover ho ey is in most seasons here. With u the late honey is always darker in dr seasons than it is in wet seasons, no withstanding J. A. Green's skepticis in Gleanings, Page 13. That hone varies much in color was evident samples of clover honey exhibited the Harrisburg convention. The sa ples were from different parts of t United States. The color ranging fro water white to pretty dark amber. have noticed that buckwheat honey always thicker and darker in a d season than in a wet one. No. fire t ammunition at him before he thin of shooting.

If the manufacturers are going make the Hoffman frames more fo proof, by making more with squa edges than with V edges, those of that don't like those V's will not ha to lie awake any more nights worr ing how to clean out those lit troughs full of propolis at the ends each frame. Those V-edge frames a a "tarnal" nuisance in a place wh bees gather large quantities of gl like they do here.

The bees seem to just delight in f up those little troughs with propo sticking the frames together into a s id mass, that can hardly be separat in cool weather without splitting breaking some of the frames.

Turbotville, Pa., Jan. 14, 1905.

SIXTY YEARS AMONG THE BEES.

By W. J. Davis, 1st.

(Second Letter,)

THE BUCKWHEAT cake of blessed memory flourished then, but it was always preceded by bountiful flow of dark honey. Not nce in a while, but every year. Now t is once in a while. No dependence o be placed on a harvest of honey rom buckwheat. But, fortunately, the urple aster has come in to take its lace as fall forage.

Another hive used along in the fifies, was about 14 inches square and ix inches high, with holes in the top or storefying. When one such beame full, an empty one was placed nder it and then another, as circumtances seemed to demand. The uper ones, when full, were removed and oney strained if combs were too ark for table use. This was probably step toward what is now known as ie Heddon hive. Various other hives ere devised which we will not stop describe. But in 1860 the Langtroth movable frame hive made its ppearance in this part of Pennsylania. I bought the right to use said ive, and a new system of manageent was inaugurated and a wideread interest awakened in bee culre.

In January, 1861, the American Bee urnal made its appearance, pubshed in Philadelphia and edited by amuel Wagner. The Dzierzon theory parthenogenesis and the Italian bee tracted attention. But the sound of ar was heard in the land and the st publication of the continent deted to bee culture was suspended til July, 1866, when it reappeared om the city of Washington, D. C. is not my province to speak of the erits or demerits of said publication another started soon after in the ty of New York, only to say that the tter seemed to me to exist only to lvertise what was known as the merican hive," upon which a patent s granted and much of the profits hich should have gone to the bene- of good old Father Langstroth was verted from its proper channel and e real inventor of the movableme system was doomed to live and die without receiving the pecuniary reward which his great discovery entitled him to receive. I will give a brief description of said hive, for I think they are a thing of the past, and would be surprised to learn if any are in use at the present time. It was a movable comb hive, that is, you could get the frames out when filled with comb, but you could not put them back. I had the pleasure (?) of transferring the contents of eight or ten such hives into L hives about 35 years ago, that I took of a friend in exchange for some Italian colonies in L hives.

I desire in these articles to give to beginners in the fascinating pursuit of bee culture as much information as possible, gleaned by 60 years of actual experience with bees, and as I am too old for flattery, I can be pardoned for saying, by the aid of reading all the standard works from Dr. Bevan, (a writer of England) through to Maurice Maeterlinck and several journals devoted to bee culture, I repeat, I can be pardoned for saying that I have learned some things but not all.

I receive many letters running about like this: "I am a beginner in the bee business and I wish you would tell me how you would do" this and that, and that, I find that in the scope of an ordinary letter a man can not give very much instruction. One man in Connecticut says: "I wish to engage in bee culture. What time would you advise to buy bees?" My answer was in the month of April. Bees are then lightest in stores and brood and are supposed to have come safely through the winter. Second; "What kind of frame would you use?" I say a free hanging frame of the Langstroth type. In this I have no reference to length of frame, I mention this because a writer in a late issue of a certain bee journal recommends frames with top and end bars 1 1-2 inches wide and frames fitting close together both at top and ends. I will say that writer may like such frames, you will not, Mr. Novice. I heard an aged man once say that one experience is better than two theories. Kind reader, you can digest that saying at your leisure.

Bee-Keeping Not a Precarious Business.

About 45 years ago a man said to me, "How long have you kept bees?" I told him 15 years. He straightened himself up and said with all the solemnity of an oracle, "In five years you will not have a bee." "Why?" said I. He replied, "Because I have known so many who have kept bees about that long and get as high as 100 swarms and then lose them all:" He proved to be a false prophet, for I have not been without bees since. I first invested 60 years ago. But if any prospective bee-keeper thinks he can get a few colonies and set them down in some fence corner, give them no attention but possibly to hive the swarms that may issue and expect to make a fortune from them, you better invest in something else. But I will add, that bees will stand more neglect than any other domestic animal, but with intelligent care will pay better than any other stock on cost price, labor and expense.

Again, there may come a year, or years when the climatic conditions may be such that the honey crop will be a failure, and the same may be said of any other crop the farmer may attempt to produce. Again, if any one expects to become a millionaire raising bees and honey, I really wish him success and I will be ready to say there is one who has become rich not at the expense of his fellow man. For all the bees collect is so much added to the great storehouse of nature that would otherwise be "scattered by the winds or lost on the ambient air."

The Italian Bee.

From 1860 there was considerable said in the agricultural papers about the Italian bees and several American bee keepers began to import them. Among the number, as I remember them, was Rev. Langstroth, Quinby, Colvin and Carey and possibly others. In May, 1866, I wrote to Richard Colvin, of Baltimore, as to the purchase of an Italian queen bee. He replied that he was booking orders for queens at $20 each, but thought he had as many orders booked as he would be able to fill that year. I began to look elsewhere. On the 22d of July, 1866, I received two queens from another source at a cost of only $12. The little queen (not Italian) that presides in the hive that has windows and doors and whose interests were identical with mine, remonstrated some, saying that $12.00 was a big price for two little bees. But you see, I had the bee fever pretty bad. I had at the time 60 colonies of black bees in Langstroth hives. I introduced both queens successfully and reared 11 young queens that season which met black drones. Mine were the only Italian bees in the county at that time. According to the Dzierzon theory I had 13 queens that would produce pure Italian drones in the spring of 1867. In that summer I Italianized my whole apiary, which ir the fall numbered 120 colonies. My method of procedure may be of interest to some beginners.

I went through my black colonie about twice a month and shaved th heads off of the capped drone brood having first reduced the drone comb t the minimum and had but little trouble with missmating; and what I ha came from droves of bees locate within two to five miles of my yard a they will cross at the latter distanc I happen to know. I had an out ap ary of black bees five miles nortl with intervening wooded hills, an one of my black queens mated an Ita ian drone from my yard at home a there were no other Italian bees in th county. I had prior to the introdu tion of Italian bees discovered should say observed) some very ol jectionable traits in my black bee First, they did not properly defe themselves against the wax moth. Se ond, in attempting to capture a que the bees would either fight or run wild confusion up over the sides the hive or out at the entrance. Thir not good defenders of their hom from the attack of robber bee Fourth, a proclivity to desert the homes enmasse in the spring and t to force an entrance into some oth hive already occupied. This tra showed most plainly in the month April, when the bees were idle. Th desertion did not arise from any b condition of hive or comb, for som times it would occur while 10 or pounds of good honey remained in t combs with brood in all stages development and combs free fro mould or any other objectionable fe ture. If I returned such deserti swarms to their own hives they we sure to come out again at the fi favorable opportunity. The only w I could successfully manage them, w to remove their queen and compel t bees to rear another. By the time t young queen would be hatched th mania for deserting would be cur

Then the proper thing to do was to kill the young queen and introduce a laying one. The queen removed might be kept caged in some other hive while the young queen was being reared, but caging her in her own colony would do no good, as the bees would swarm out just the same.

I find that the Italians will stick to their home, even a small swarm. They seemed to me to say they would die in the last ditch before tney would desert their babies and their homes. They seem to have confidence in them- elves and of their ability to make a ving if outside condtions would but ermit. I find the Italians are death the wax moths. I can keep empty mbs which are not in use as long I please in my home yard, and the st summer I saw but one moth mil- r (which I dispatched at sight.) It is ually but little trouble to find an alian queen in a populous colony, ving to their beautiful appearance d their stately, majestic movements. so the gentleness of the workers, hich usually remain quiet on the mbs while being handled, and in all my manipulations of the hive, I have for years discarded the use of bee veil or covering for my hands. But I would not advise the inexperienced to take needless risks. Provide yourself with a good veil and good smoker. When forage is abundant, black bees work all right, but should there be a scarcity, blacks will remain idle, while Italians will make their living and even make some gain. I simply speak my own experience. I may or may not agree with others.

American Bee-Keeper.

Mr. W. J. Davis in the Apiary.

A Home Apiary.

About 20 years ago I established one seven miles from my home. Two railroads between the points afforded a ready means of frequent visits. I built a house 12x16 feet to accommodate 32 colonies. It was sided with one-inch V siding; floor and ceiling were matched flooring, a window in south end and door in north end. Fly holes were cut through siding and alighting boards screwed on the outside, and the hives set on inside to correspond with fly holes. Hives were unpainted but bee-house well painted, with good shingle roof and lock on door. The hives were arranged for storifying and I put on 30, 60 or 90 sections per colony as circumstances seemed to indicate. The locality had what I had not at home, the benefit of a large range of red raspberry-blossoms. The only labor or expense of the land owner was to hive the swarms as they came off, as I could not be with them much in swarming time.

A verbal agreement between Mr. — and myself as to his reward remained unbroken and unquestioned for 16 or 17 years, until he sold his property and moved from the place. The new man knew nothing of bees, so I returned them to the home yard and sold the building to be used for other purposes. But the enterprise was a success. And the only reason I give it here is the quite prevalent opinion that house apiaries are a thing of the past, and indeed as they used to be made, I think so myself. In such a building as I have hastily tried to describe, the bees and honey are secure from night prowlers, whether beast or human. Cases of filled sections after removal from hives can be piled up where it is kept warm. I still use a smaller house away from home that holds but 20 colonies. I cannot too highly recommend the house apiary if properly constructed, and especially as an out apiary and where the bee-master can secure a suitable man to look after the swarms that may issue.

Before the introduction of the one-pound section I used a small frame made of one-fourth inch pine lumber. The frames were made to hold one and two pounds and hung on rabbets, but spread a little wider than brood frames. In the sixties honey in such frames brought 30 cents per pound. It would lend a charm to bee-keeping if such prices could still be realized. It would also lend another charm if the prices of bees and queens were about what they were a third of a century ago. In the early seventies there was a brisk demand for Italian bees, and in one season I sold $1,200 worth in full colonies and $500 worth of Italian queens. I used 100 nucleus hives for the fertilization of young queens; said hive held four and some six of the two pound surplus frames and a feeder to each little hive. Queens brought $2 each when fertilized and full colonies $15 in eigh frame L hives. Its a good thing, youn man, to have your dish right side u when the shower comes. The prevailing prices at that time stimulated th rearing of bees and queens and competition brought the prices below wha they ever should have been, and beekeepers, like some owners of othe kinds of stocks, saw their suppose wealth vanishing into thin air.

But the pendulum swings on an every fellow said, honey is an articl of commerce, and the watchword wa get every pound possible, some worl ing for comb and some for extracte "Sling it every drop, and feed sugar West Indian honey for winter stores The result could soon be seen, a pl thora of the city markets. One cor mission firm in one of our large cities started the plan of putting piece of comb honey in a glass vess and then filling the vessel (or can) wi something else" sold large quantiti both at home and in Europe. I member one of their circulars sho ing a large man with can under h arm running at full speed showi No. 12 on the bottom of his shoe, wi these words:

"On wings of love my soul would
From groceree to grocery for honey

The selling was all right and would have cleared the markets time if it had not been for the "son thing else."

HANDLING BEES AND TH HONEY CROP WITH PROFI

The Most Extensive Bee-keeper in Michigan T Mr. Johnson How to Do It.

By E. D. Townsend.

THE FEBRUARY BEE-KEEPI is received, and I note what J. Johnson says, page 25, about ing persuaded by the Bee-Keepers' I view to "keep more bees," and how had taken that advice to the extent increasing five hundred per cent two years, and harvesting a crop colony spring count of 250 pounds o season, and 64 1-2 pounds the other

That is good (?). I think after rea ing this report, we are all ready admit that Mr. Johnson is a practi up-to-date bee-keeper, as no tenderf in the business would be likely to such results. In fact, all his troul appears to commence when he begins to exchange his hard-earned honey for cash. Let us see: after selling his last year's crop at $3.00 per case of 24 sections, he quotes the same market this year at $2.25. Taking his own figures, and supposing the 24 sections to weigh 22 1-2 pounds that would be 10 cents a pound, less freight and cartage, 29 cents, commission 10 per cent. 22c making a little over 2 1-4c a pound, as the expense of selling. Ten cents less 2 1-4c would leave 7 3-4c for No. 1 white section honey, with the items of labor and material, interest on capital invested, etc., still to be deducted. After quoting figures similar to the above, he asks "What has brought about such a state of affairs? and what is the remedy?" The first question "What has brought about such a state of affairs? is a debatable one. Some will claim it is an overproduction, while others will insist that it is caused by the large quantity of poor-grade honey that has been put on the market during these three last cold seasons, when it has taxed the skill of our best bee-keepers to produce a good article. Still others will urge us to organize, so that we can unite and advertise our honey; so the consuming public will better understand the merits of honey as a health food, etc.

I think, however, we will all agree that we should strive to produce the best article we can, either of comb or extracted honey, then, after producing a good article, put it up in the best possible shape for the market, being very careful in grading so as not to get an inferior article mixed with our better grades; for the buyer is always trying to buy as cheap as possible; which s natural, and if he finds No. 2 sections of honey mixed through our No. 1, he will be quite likely (and with reason) to try to settle with us on a No. 2 basis. As Mr. Johnson gets the best price in the market he sold in, hese last remarks do not apply to him.

Mr. Johnson is worried about the arge bee-keepers of the west organizng, fearing they will eventually drive he small bee-keeper of one or two hundred colonies out o business. Quiet your fears, Mr. Johnson. You may be uprised when I tell you that they are ombining their crops together to ship east in car lots, to save freight. They are trying to secure the advantages you already have; or, in other words, they are paying freight east to, say, Chicago. Still, after paying this freight their honey is not worth a cent more than is your own at your railway station, quality being the same.

Looking at the problem in this light, things are not so bad after all. In the first place, I think Mr. Johnson made a mistake in sending his honey to a commission house and paying nearly 25 per cent in freight, cartage and commissions. Better supply yourself with mailing blocks to mail samples of your extracted honey. Then put a notice in the American Bee-Keeper that you have honey for sale, and you will mail a sample of the extracted, to prospective buyers free of charge.

Honey dealers all take bee journals, so any of them needing honey will be likely to write you. You will have no trouble in selling your comb honey at a good price, but your extracted may not go so fast. But if the dealer finds that you have a superior article, you will not have much trouble to dispose of even the extracted.

I speak from quite an extended experience in this mode of selling honey, having sold nearly 40,000 pounds mostly extracted, during the last two years in this way at prices way above those Mr. Johnson quotes. Our No. 1 and fancy white comb in 4x5 plain sections selling at 14 to 16c, and white extracted in 60-lb cans at 7 to 8c, on car here. Had you not better look this matter up, Mr. Johnson by asking a good fair price for your honey? You not only help yourself but the fraternity at large. Think the matter over.

Mr. Richard Curry, page 24, I quote in early spring, if you find too much old honey in your hives, consequently your queens cramped for room to deposit their eggs, you can use your extractor to advantage. Not so up here in Michigan, Mr. Curry. If a colony has room in their brood nest during fall to breed up a swarm, numerous enough to winter, then, their usual amount being consumed during winter you will not need to use your extractor during spring; even if the hive is 2-3 full of honey when the breeding season opens in early spring. Let them have it all and take my word for it, that honey will disappear before June and in its place you will have a rousing swarm, ready to take advantage of the honey flow when it comes. It is surprising how those great solid slabs of honey will disappear during the height of the breeding season of spring, with a good prolific queen; and when bees were properly wintered I have never seen a colony where they had so much honey that it was a detriment to them during the spring.

The gentleman over the river had evidently not handled his bees to the best advantage during the season, or they would not have been clogged with honey so that they had no room to breed up for winter. If he had made his supers a little more attractive by giving them some bait sections, and had used full sheets of foundation in his sections and thus got them to work, as he should, he would not have had this trouble. Bet a cooky his comb honey crop was short.

Remus, Mich., Feb. 11, 1905.

THE RIPENING OF HONEY.

By Adrian Getaz.

IN THE Bee-Keeping World Department of this paper, is an item translated from the Revue Eclectique concerning the experiments of Mr. Huillon on the ripening of honey in the hive; Or rather, on the evaporation of the surplus water, for it must be remembered that the ripening of the honey means more than mere evaporation.

To say that I was astounded at the results obtained, or if you prefer, the assertions made, would not be a great exaggeration by any means. I did not realize the full import of them until the second reading. Then I hesitated. But I had already commenced the translation and the articles really worth translating are very few in number and far apart in time; so I finally decided to let it go in.

Since then I have lost some sleep studying the matter and have arrived at some conclusions. But let us first recall Mr. Huillon's experiments. He gave three colonies new sets of empty combs early in the morning, taking away all those that contained honey. The combs of colony No. 1 were taken up as soon as the day's work was closed. Those of colony No. 2 were not taken out until early the next morning. Colony No. 3 was shut in the cellar three days and then the combs taken out. The honey was extracted from all, and the density ascertained. The honey, or nectar, of colony No. 1 was found of a density of 1.394. That from colony No. 2 1.413 and that from colony No. 3 1.432. This last is somewhat heavier than the fully ripened honey is generally which is 1.424. Admitting that this last contains 20 per cent of water and 80 per cent of sugars (sucrose, dextrose and levulose) and calculating the percentage of the others from their densities, we find that the nectar or honey at the end of the very day it has been gathered contains already 74 per cent of sugars and only 26 per cent of water. By nex morning the percentage is reduced to 22 per cent of water and a day or two later it is ripe honey so far as evaporation is concerned.

Evaporation.

This 26 per cent of water at the en of the first day is what stunned me The nectar as found in the flower contains only 20 per cent of sugars an 80 per cent of water. To bring down to 26 per cent of water, it necessary that over nine tenths of th water originally contained in the nectar should be evaporated.

That's not all. Evidently thes figures represent the average for th whole day's gathering. As the las gathered could not have the time t evaporate, the rest must be sufficien ly advanced to make it up. In fac most of it should be completely evaporated within a few hours after being brought in. That is simply impossible. Even with the help of the bes boiling apparatus and a brisk fir such a reduction could not be made.

We are then confronted, not by theory but by an impossible condition Either Mr. Huillon committed a egregious blunder, or the true explanation lies in another direction. is not likely that Mr. Huillon made mistake. All that he had to do was to measure one liter of the honey an weigh it. The weight in grains woul give the density at once since one lit of water weights one thousand gram

Some corrections might be introdu ed. The honey having a density o 1.424 might not be exactly 20 p cent of water. The nectar gathere

night have contained less than 80 per
ent of water. The temperature
hould have been taken in considera-
ion. The inverted sugars may not
ffect the density exactly like the
ninverted. But after making a gen-
rous allowance for all possible correc-
ions, the general results are not ap-
reciably changed.

On the Wing.

There is but one explanation that I
an see. That is the excess of water
s expelled from the nectar while in
he honey sacs of the bees during the
ime they gather it and come back
ome with it.

That's not a new theory. The idea
as advanced years ago by several
riters. They thought that the bees
ight possess some apparatus similar
the kidneys by which the excess of
ater might, we may say, be filtered
hrough and expelled. To this it was
eplied that the bees do not possess
nything like kidneys or any other or-
an capable of doing such work.

The last assertion is correct, but the
hought occurred to me that the evap-
ration or filteration, whatever it
ay be, might be accomplished by
ther means. Most of us during hot
eather have more than once im-
ibed a pint or two of water only to
ee it come out at the skin almost at
nce in the shape of sweat and be
bout as thirsty as before in less than
n hour or two. What is not gen-
rally known is the fact that such a
rocess is constantly going on, more or
ss, even in the coldest weather. The
ater usually vaporizes as soon as it
eaches the outer side of the skin, and
only seen as water when in quite
rge quantity. Furthermore the same
rocess occurs through the lungs, and
he vapor they emit is very visible in
ld weather.

The bees cannot sweat; their skin
f skin it can be called), is built on
nother principle, but their lungs are
tensively developed, ramify and
each everywhere throughout the
dy. And it might be that the excess
water contained in the nectar could
largely evaporated through them,
ring the time it is gathered and
ought home.

To that it may be objected that the
ctar freshly gathered is very liquid
d falls out of the combs easily.
at's true; but the objection has not a very great weight. You can dissolve a pretty fair quantity of salt in water, and that water will be as liquid as before. You can dissolve a considerable quantity of sugar in cold water; the mixture will be about as liquid as the nectar. But heat or cook that mixture and it will thicken considerably and become syrup or even candy. The thickening is due to the inversion of the sugar, especially to the levulose which is of a more gummy nature than the others. (See the best books on Organic Chemistry for full information on that subject.)

Night Work.

The next question is: If most of the evaporation is done during the very day the nectar is gathered, why do the bees work so much during the following night?

Perhaps some of the readers of this article may wonder what I mean by "working it during the following night." I could not give a better answer than by quoting what Doolittle says on the subject:

"When bees are gathering nectar from the field, they give the same, on entering the hive, to the young or nurse bees, as I have said before. If no more is gathered than these young bees can hold in their sacs, none is put in the cells. If more is gathered than their sacs will hold, the surplus nectar is put into the cells by these nurse bees until evening, and then evaporated down, although this evaporation is going on to some extent during the day. At night, all hands join; from the outside laborer with well worn-out wings, down to bees but a day or two old, when the nectar is taken into the honey sacs, thrown out on the partly doubled tongue, drawn back in again, thrown out and drawn in again, and so on, until by this stirring up process and the heat of the hive, these small particles of honey are brought to the right consistency, when it is deposited in the cells to be sealed in due time."

Now, why all that, if, according to Mr. Huillon's experiment, only a small per cent of water remains to be evaporated?

To this it may be replied that this work is not altogether a question of evaporation. The bees also add to the reduced nectar, secretions from different glands and mix them thoroughly together during the process above described. Some chemical changes undoubtedly take place or at least begin during that time.

Final Ripening.

If all the above is true, the evaporation of the surplus water and the mixing of the different elements should be complete in less than two days, (unless it be in very heavy yields). But we know that the honey is not ripe yet. Some chemical reactions have yet to take place slowly before the honey is really ripe or fully ripe. The most important one is the full transformation of the cane sugar in dextrose and levulose. Others affect the taste of the honey. Many kinds of honey have at first some disagreeable taste that gradually disapears through the ripening process.

Artificial Ripening.

If two or three days is all that is needed to put the honey in such shape that the remainder of the ripening process can go on, so to speak, of itself, why not extract it then and let the ripening go on outside of the hive?

Well, I don't know. There may be some other conditions to fulfill beside those mentioned above, some perhaps entirely unknown.

Artificial ripening has been attempted already with more or less success, rather less than more, as far as I know. I presume that to be entirely successful it would be necessary to keep the honey at a uniform temperature the same as exists in the hive. A higher temperature would destroy the essential oils which give the honey its good taste and peculiar flavor. And it would take but a few degrees for that.

Knoxville, Tenn.

THE LARVAL QUEEN.

The Influence of Conditions Upon Its Development.

By Arthur C. Miller.

IN THE American Bee-Keeper for March, page 46 Mr. John M. Davis has an article in which he expresses the opinion that I have contradicted myself or changed front in my opinion on queen rearing. He bases this opinion on my article in the January number of the same paper, page three, where I wrote of the value of the warmth, humidity, and food conditions of a normal colony in the production of queens. He believes tha this conflicts with my expresse opinions as to the high value of th Alley system of queen rearing becaus nuclei are an essential part of that sys tem.

A brief description of the Alle nuclei may correct the misconceptio of Mr. Davis and of others who hol similar views about Mr. Alley's worl

Mr. Alley's nucleus-hives have capacity of about 250 cubic inche contain four combs about 5x5 inche an entrance one inch by one quart inch and a feeder on the atmospher principle, the opening of which is w within the hive.

The combs are kept full of hone pollen and brood and the hives pack with bees. It will be seen very plai ly that this is far away from a te cupful of bees. The conditions wi nuclei of the Alley kind are the sa as in a larger colony.

To get the nuclei into the thrif condition above mentioned requi skill, the main training of them in su condition is one of the fine arts of b craft; and to do both these thi easily and cheaply is beyond the abi of many apiarists and it is for t reason that so many condemn Alle nucleus system. But the skill o acquired the system becomes as pl tic as clay in the hands of the mo ler and probably the cheapest of systems.

Mr. Davis says he can see no ference between queens reared by Alley system from the egg and th by the transferring of larvae. The ference exists, however, and the will come when the transferring s tem will be cast aside and bee-kee will wonder how they ever came to it.

Reaunear was the first to try it I mistake not, then Huber wrote o and at intervals for the next seve or eighty years it was written ab Finally it seemed to be a fine thin hang advertisements on and it boomed accordingly.

With Alley's plan the larvae eme from the eggs as princesses and ceive royal treatment from bi while with the transferring pro they start as menials to later be t ed violently into queens "while wait."

It is said all larvae have the s kind of food for the first three d and on the strength of this users of the transferring process base their claims for the safety of the system.

I would like to ask what they really know about it?

But even with queens properly started and nurtured there are plenty of opportunities for harm between then and the time they are mated and laying. The first danger is in the caging methods. Caging cells is one of he weak spots in nearly all systems f commercial queen rearing. Few reeders are able to dispense with it.

THE LATE GEORGE W. BRODBECK, OF LOS ANGELES,
Secretary of the National Bee-keepers' Association.
Whose Death Occurred February 6th, 1905.

Mr. Davis' conclusions that a queen s not mature and fully developed for everal days after emerging are almost eyond debate. To perfect the development, the queen requires among other things, an abundance of nourishing food. This she cannot get in a cage and when this cage has candy instead of honey the conditions are about as bad as they can be.

I think it was the eminent anatomist Hunter who about 1790 noticed the immaturity of some bees he was dissecting. In 1872 Gen. D. L. Adair wrote of the undeveloped stage of young bees and he applied the term "adolescent" to this period. It is strange how this has been lost sight of, particularly when so many conjectures have from time to time been made as to why bees pass from one kind of work to another, as they grow older.

Providence, R. I., March 7, 1905.

REPORT OF THE ANNUAL MEETING OF THE YATES COUNTY, N. Y. BEE-KEEPERS SOCIETY.

A BUSINESS MEETING of this Society was held March 9, 1905, in Penn Yan. All the old officers were re-elected. For Treasurer, P. Quinn; Vice-President, A. Spooner; Secretary A. Owen, Dresden. Mr. Spooner was elected a committee of one to see to the purchasing of supplies.

Mr. Spooner, being president of a farmers' club of 150 members said that by purchasing fertilizers in carload lots they had saved the members six dollars per ton on the same brand. This saving of money in buying goods is one of the principal ties which binds an organization together, and by the same means, he said, the bee-keepers could be held together. When they become aware that they can save money by belonging to the Bee-Keepers' Society they will join and stay in the organization.

F. Greiner, of Ontario county, N. Y., had been engaged to deliver an address and was present. He spoke chiefly upon the subject of profitable bee-keeping and was listened to with interest on the part of all present. The many questions asked compelled the speaker to often go into the details of his management.

The "Shook-swarming" method as a means of handling out-apiaries had to be fully explained; also the clipping of queens. A curved pair of scissors were shown by him, which he had used for years and which he preferred for the purpose of clipping, although he said he could perform the operation with a pair of tinner's shears or an old hatchet if had to be.

Mr. P. Quinn told a little story of his experience with an old dilapidated box-hive which he had bought some years ago. It contained a good swarm of bees which he transferred a la Heddon, a method coming very near being the "Shook-swarming" method. The bees were drummed out into an empty box placed on the inverted box-hive. When the larger part of the bees had clustered, the box was lifted off and the bees hived into an empty hive placed on the old stand. A section case was at once given, and room given as needed. On the 21st day after the first drive, a second one was enacted. This time all the bees were drummed out and hived in with the first lot. The combs were broken out of the old box-hives, the honey extracted and the comb rendered. From the swarm thus treated Mr. Quinn took 80 one-pound sections of nice white honey.

Mr. Spooner claimed to have had bad luck in shipping honey by express. This drew out Mr. Greiner as to his manner of shipping comb honey by freight, as many as eight single-tier 24-lb cases being crated in one large crate with handles securely fastened on in such a manner that two men can carry the large 200-lb crate between them. He said he had never had any honey smashed since shipping honey in this way by freight during warm weather. He held that the early fal was the time to move honey in th North, that honey when warm, gives little, and goes back to its forme shape without cracking. At one tim he had upset a small wagon load o honey, which had just been take from the hive. This happened on warm August day, and although th wide frames with their sections i them rolled out of the cases, some o the cases or supers even bursting, ye among the 500 or 600 sections only very few were damaged in any wa On a cold day such an accident woul have ruined the entire lot.

Many other questions were propounded and satisfactorily disposed o

It was decided to hold another mee ing inside of five weeks to settle o ordering supplies.

The meeting adjourned.

SPECTATOR.

A LARGE GILL OF REFRESE MENT.

"Now most writers and some ed tors teach that comb honey should a ways be sold by weight, claiming th their conscience bothers them if the know a customer gets an ounce mo or less than actual weight. Right he I want to plead guilty that my co science is not so tender and that I b lieve in paying a premium for qualit Hence I buy my oatmeal by the pac age and my pills for their quality i stead of how many there are in box."—M. A. Gill in American Be Journal. May the Lord bless the fran honest and refreshing man.

WORK IN BEE CULTURE.

Extract from the Report of the Entomologist, of the U. S. Department of Agriculture, for 1904, by Prof. L. O. Howard.

A great increase in correspondence on all topics relating to apiculture so far occupied the time of the single investigator in this line that original investigations had to be limited. This correspondence covered nearly every phase of the subject, and came from ll parts of the country, indicating a ery general increase in the interest in this branch, and often required special etters of some length to elucidate the nformation needed. Frequent assistnce was rendered teachers connected vith the public schools and normal institutes where the natural history of he honey bee, and in some instances lementary instruction in the general nethods of bee management, formed a art of the course. Advice was also iven in some instances to agricultural olleges contemplating the institution f special courses in apiculture.

A small number of choice queens of he Cyprio-Carniolan cross, which has roven such an excellent one for the rid regions of the South and West, vere sent out. The extremely dry eason in southern California has iven a severe test of the remarkable nergy shown in honey collecting by ll crosses containing Cyprian blood; nd while it has been necessary n many apiaries, in order to prevent tarvation of the colonies to feed a arge proportion of the Italians and ybrids which are chiefly kept in that art of the country, reports have been ent in showing that 30 to 40 pounds f honey per colony have been found the same apiaries in hives whose ueens were largely of Cyprian blood. he comparative test betwen the Cauasians and other types of bees, inluding Cyprians, Carniolians, Italins, and various crosses between these ypes themselves, and also with accient mating with black drones, has een continued. The conclusion was eached that the Caucasian race was y far the gentlest honey bee that has ver been brought to this country. very manipulation necessary in the piary can be performed with Caucasian colonies without the use of the bee veil, and only in rare instances has it been necessary to apply smoke to control them. Very small quantities were then employed. Under nearly all circumstances it would almost be believed by all observers that these bees were stingless. The test regarding their honey-producing qualities has not been as conclusive, since the past year was, in general, a poor one in this region. However, in so far as the comparison extended, it was found that they held their own in honey gathering by the side of the Carniolan race, although not equaling in this respect the Cyprian crosses mentioned above.

The revival in various newspapers of stories relating to the manufacture and marketing of comb honey has called for repeated denials and a plain statement of the absurdity of the whole matter, as well as the great injury it was working to the apiarian industry of the country. The newspapers and other publications which had inadvertently been led to publish these inaccuracies have nearly always been very ready, upon a proper presentation of the case, to insert a correction. Particular attention has been drawn to the fact that it would cost far more, by any process whatever, to produce a wax, or imitation-wax comb, fill it with honey, or any mixture designed to resemble honey, and then seal it over ready for the market, than it would to maintain and care for an apiary of the required number of colonies to produce through the agency of the bees themselves the same quantity of natural honey. This shows at once the absurdity of the claim that the greater part, or any part, of the comb honey on the market is an artificially manufactured product. This showing has also been followed by a statement of the fact that a reputable firm has for twenty-five years offered to forfeit $1,000 to any person who could produce artificially an imitation of comb honey which would deceive any person when compared with combs that are filled and sealed by the bees themselves.

Early in the fiscal year the apicultural investigator visited the arid regions of the Southwest, making an extended inspection of apiaries over the whole of southern California, and fertile [illegible] in the central and northern parts of the State, with a somewhat cursory view of the conditions of the industry in Oregon, Washington and Montana. The conclusions resulting from this tour were to the effect that the introduction of various types of bees adapted in each instance to the respective climates and peculiarities of these regions, together with the introduction of certain honey plants from other portions of the world, which from similarity of climate, etc., would be certain to thrive in the portion of the country visited, would result in a very important increase in the honey production of the West. The execution of this work is therefore advisable in the near future.

THE NATIONAL ELECTION.

To the members of the National Bee-Keepers' Association:—

The chairman of the Board of Directors is in receipt of a letter from Mrs. G. W. Brodbeck, dated February 11, 1905, announcing the death of her husband, Secretary G. W. Brodbeck, and enclosing the following results of the ballot taken last November for officers of the National Bee-Keepers' Association:

President—J. U. Harris having received a plurality of the votes cast for President was elected President, 232 out of 355.

Vice-President—C. P. Dadant having received a plurality vote cast for Vice-President, was elected Vice-President, 251 out of 355.

Secretary—W. Z. Hutchinson having received a plurality of the votes cast for Secretary, was elected Secretary, 203 out of 359.

General Manager—N. E. France, having received a plurality of the votes cast for General Manager, was elected, 336 out of 349.

Directors—E. Whitcomb, R. L. Taylor and Udo Toepperwein having received the greatest number of votes for directors to succeed those whose terms expired were elected.
E. W., 100 out of 165
R. T., 102 out of 256.
U. T. 189 out of 311.

The result of this ballot should have been declared last December but owing to the fatal illness of Secretary Brodbeck it has been delayed.

W. F. Marks,
Chairman of the Board of Directors.

THE GOBBLER AND BEES.

By Yon Yonson.

Von day ay buyed som bee hive
Vid som little bees inside,
Dom vas black and yeller and striped
An dom crall, an yump an flied.

Ay put das hive a shade tree under
Yust to keep da sun avay
Da bees dom sing an fly lak tunder
An sting da turkeys if dom stay.

Von day a big blak turkey globble
Vid a hed as red as fire,
Stop in front da hive an holler
An spred his tail bote vide hier.

Da bees dom don't vas lak his cull
An dom don't vas lak his stile
Soon his hed was covered over
An dar turkey don't can smile.

Das turkey put von hine foot over
An try to poke der bees avay
But he fine it don't vas clover;
Da bees vas on das hed to stay.

Den he yump an fly an gobble
An he run an scratch an paw
Soon he don't kin hardly hobble
An he don't kin hardly saw.

Cos his eyes dom vont unbutton,
An dom don't vas open vide,
Das gobbler don't vas kin see nutti
Ven he tried an tried an tried.

Now das turkey's hed vas bigger
An ay tank he got more sense,
His hed, vonce red, iss blak lak nigg
An he run agenst da fense.

Das turkey dont vas haf da rumatis'
For nineteen generation
Da bees das gobbler curred free grat
On dere own recommendation.

Bee sting don't vas hard tu tak
Dom give it on da run,
A doctor's bill dom don vas mak
Dom tak ders pay in fun.

M. Brochet says if the hands a rubbed with bruised leaves of le bees will not sting them. What se respecting insects bees are.

THE

Bee-Keeping World

Staff Contributors: F. GREINER and ADRIAN GETAZ.

Contributions to this Department are solicited from all quarters of the earth.

GERMANY.

Freudenstein holds that the production of sugar honey, and selling it as such,is a perfectly legitimate business, and if the bee-keeper can make it a profitable business he should or might in the absence of a natural honey flow enter into it in order to make his bees pay their way.

The dysentery is a disease of bees even more dreaded in Germany than here. The editor of the Neue Bztg., Freudenstein, has for years advocated its cure by sugar feeding; says bees need no cleansing flights during winter.

With the Reitsche comb foundation moulds, Neue Btzg. says 150 sheets may be made by an experienced person in an hour.

The tobacco pipe is still holding sway as a bee smoker in Germany. That a professional bee-keeper can possibly get along with such an inefficient affair when an American smoker is procurable is more than the writer can understand. The German bee-keeper must be terribly wedded to his pipe. Illustrations are given in the Neue Btzg. showing how an ordinary pipe is converted into a blow-pipe. At the beginning of my bee-keeping career, I made use of the blow-pipe purposely constructed and working much better than an ordinary tobacco pipe possibly could, but by the side of our present smokers it is but a miserable excuse, at the best, and while I still have one in my workshop, it is not taken into use and has not been in 25 years.

The Leipz Bztg tells of a young man who became a bee-keeper by finding a late swarm hanging on a bush. He took good care of it, wintered it and kept carefully increasing. After 16 years he now has an apiary of 40 swarms of bees from which he has an income larger than from his farm, he says.

Claussen claims in Schlesie, Holst Bztg. that queens lay more eggs during their third season than during any previous one. This seems to disagree with our experience in America. Looking over my home yard last spring, Inspector Stevens and myself found that nearly all the best and strongest colonies were headed by queens of previous year's raising. Other bee-keepers here find the same rule existing.

Gosch in the same paper, says the import duty on honey is five cents per pound. The Austrian government only levies a duty of less than two cents.

A dead air space affords not nearly so much protection as one filled with non-conducting materials, so writes Dr. Buttel in Central-blatt. An experiment shows that when ground cork retains 77 per cent. of the warmth produced, the dead air space retains only 18 per cent.

The comb foundation manufacturer who was reported last month to be heavily fined for using a large portion of paraffin in the manufacture of his foundation, makes the following statement in the Die Biene: "Chemists have about the same difficulty to distinguish pure beeswax from adulterated waxes that they have to tell pure honey from adulterated products. It is not shown that the chemist, who made the analysis, has made his statements under oath. The wax which was used in the manufacture of the foundation was such as was received from the bee-keepers as pure wax and came from the same locality where the adultrated foundation was found. He, the manufacturer, was not allowed by the court to show by his employees or his books that paraffin has never been bought by him. To guard against adulteration of wax it would be necessary to have every cake of wax chemically tested, a thing not practicable.

Finally, being physically unable to continue lawing about the matter he had to give up carrying the case into a higher court.

Wurth recommends the following method to test the purity of wax: A small piece of wax is covered in a glass with benzine and left standing for two hours. If pure the wax will be dissolved into fine scales. Paraffin and other wax of vegetable origin retain their shape. A mixture of beeswax and other waxes dissolves partly—Die Biene.

O. L. Hershiser has a competitor who advertises for "Slumgum" in Die Biene.

Bienen-Vater reports Dr. Dzierzon being ill and confined to his bed.

DAHOMEY.

It is often stated that there are many drawbacks to bee-keeping in the South, of which we know nothing in the North. So it is in Dahomey. A dark colored lizard is a great bee-enemy there and is so plentiful that one cannot take a step without starting up half a dozen of these vermin. They are not only found in the fields and forests; they are also found in the houses, on the roofs and everywhere. They devour innumerable insects such as mosquitoes, ants, etc., and thus serve a good purpose. But they are just as anxious after bees and it is a problem how to protect the hives against their depredations.—Der Lehrmeister in Garten und Kleintier hof.

FRANCE.

Mr. Huillon made some experiments on the evaporation of nectar during its transformation into honey. The honey extracted after being sealed has (in his locality) a density of 1.424. He took out all the combs of three colonies except those containing brood only. Early in the morning he gave them empty combs. At night he took the combs out of one colony and found that the honey, or rather nectar which they contained had a density of 1.394. The combs of the second colony were taken out on the morning of the next day. The density of the honey was 1.413. The third colony at the end of the first day had been transported to a cellar and left there three days. The honey therein was found of a density of 1.432 that is, heavier by 0.008 than the ripe honey is usually.

Now it is admitted that the nectar such as it is in the flowers contains 80 per cent of water and 20 per cent of sugars or about. This would give a density of 1.106.

But the honey or nectar found in the combs at the end of the day in which it was gathered had a density of 1.394 which gives 26 per cent of water and 74 per cent of sugars. The quantity of water has considerably diminished.

On the next morning we find a density of 1.413 corresponding to 22 per cent of water and 78 per cent of sugars; that is, the honey is nearly rip so far as the evaporation is concerned.

At the end of three days the hone was found fully evaporated. But judg ing by the rapidity with which th evaporation went on during the firs day, it was probably accomplishe through the next day, since there wa but 2 per cent of water to evaporat

Taking the above figures for a basi we find that 1000 grains of necta such as it is in the flowers, contain 200 grams of sugars and 800 of wate During the same day it is gathered i loses 930 grams of water; during th following night only 14 grams and su sequently 6 grams more. It is the honey containing 20 per cent of wate and 80 per cent of sugars and of density of 1.424.

Or, taking it from another stan point, the 1,000 grams of nectar hav become 250 grams of honey—La Revu Eclectique.

A correspondent claims that whe the queen and all the unsealed broo are removed, no laying workers ar produced. He says he has tried repeatedly. He thinks that the layin workers are from larvae fed with th royal jelly, but were already too ol to become queens. He also recalls th fact that the colonies which lose the queen during the winter never deve op laying workers.

THE AMERICAN BEE-KEEPER

PUBLISHED MONTHLY.

HE W. T. FALCONER MANFG. Co
PROPRIETORS.
H. E. HILL, - EDITOR,
FORT PIERCE, FLA.

Terms.

Fifty cents a year in advance; 2 copies 85 ›nts; 3 copies $1.20; all to be sent to one ›stoffice.

Postage prepaid in the United States and anada; 10 cents extra to all countries in the ›stal union, and 20 cents extra to all other ›untries.

Advertising Rates.

Fifteen cents per line, 9 words; $2.00 per ch. Five per cent. discount for two inserons; seven per cent. for three insertions; venty per cent. for twelve insertions.

Advertisements must be received on or bere the 15th of each month to insure inser›n in the month following.

Matters relating in any way to business iould invariably be addressed to
THE AMERICAN BEE-KEEPER,
Falconer, N. Y.

Articles for publication or letters exclu r the editorial department may be addressed
H. E. HILL,
Fort Pierce, Fla.

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A red wrapper on your paper indicates that ›u owe for your subscription. Please give e matter your earliest attention.

Editorial.

Mr. and Mrs. David H. Coggshall, of roton, N. Y., have been spending e winter in Florida and made us a easant visit of several days. Speakg of old combs, Mr. Coggshall said iat he had a number of brood combs iat have been in constant use for ›rty-four years.

"The division in the ranks of the bee en of the Snug Little Isle and that Emerald hue are along the lines of e Autocrats and Popocrats rather an between Aristocrats and Demoats. It would probably be the same ›re. The desire to rule or ruin seems affect small groups both sides of the ond,' " writes a correspondent.

FOREIGN COMPETITION.

We have received from the Southwestern Ohio and Hamilton County Bee-Keepers' Association a circular letter, the object of which is to investigate the present status of the foreign honey problem, and inviting suggestions as to a practical means of dealing with the situation.

Mr. C. P. Dadant, in the American Bee Journal, in reference to the same letter says: "If the bee-keepers of this country desire an increase in the tariff, they can surely obtain it by going about it in the right way," and suggests that proceedings should be conducted through the National Bee-Keepers' Association.

The problem is a serious one, and it is gratifying to note that interest is being awakened in the matter, though, we confess, the remedy is not apparent to us. The greatest competition comes from Cuba, and to succeed in securing a revision of the tariff schedule between two countries wherein reciprocal trade relations are in affect, will doubtless require greater effort and longer time than may be anticipated.

It is well that the matter is to be investigated by organized bee-keepers, and careful study of the situation backed by determined effort may eventually bear fruit.

A BEGINNER'S QUESTIONS.

Editor Bee-Keeper:

I am a beginner in bee-keeping and should like to ask a few questions in regard to the business, as follows:

First—Do you think bees winter better in deep-framed hives than in shallow ones?

Second—Do mice ever destroy bees in cold weather?

Third—Would it be all right to nail over the top of hive in winter a piece of tin just the size of the top? Please answer in next issue of The Bee-Keeper, and oblige, Yours truly,
John McNall.

1—In the event of a protracted period of low temperature the deep frame is more favorable to successful wintering; although bees are frequently wintered perfectly in very shallow hives. Hence, it could not be said that bees "winter better in deep-framed hives." The excellent wintering feature of the deep frame lies in the accessibility of the stores. In the shallow hive the stores of honey sometimes become divided, and while there may be an ample supply of honey in one end of the frames, the cluster of bees may be at the other end, and the temperature being so low the bees are unable to move, and therefore starve. In the deep frame, the honey is always above, and consequently accessible.

2.—Mice often "play havoc" with brood combs during the winter. They cause the honey to run and may seriously injure a colony in winter quarters. If bees are in mice-infested repository it is well to screen the entrances to exclude them.

3—Tin fastened over the hive in winter would be a very detrimental arrangement. Slight upward ventilation, with some good absorbent over the hive is much better, for obvious reasons.—Editor.

THIS IS FUNNY.

Morristown, N. J., March 22.—Owing to the very severe Winter many colonies of bees have been exterminated, with the result that honey will be scarce and high this summer. Willis Andrew, who lives at Lamington, thought he would take a look at his colonies on Monday, and out of twenty-four hives he found but five living bees. He estimates that he lost at least 100,000 bees by the cold weather. They were not killed by the cold, but the honey on which they depended for subsistence had remained so solidly frozen during the cold weather that the bees starved to death.

The warm rain yesterday took off the last of the snow, which has been on the ground in some parts of the country continuously for 112 days. At the German Valley Inn a weather record has been kept daily for the past 194 years, and the record of this winter shows that the average temperature has been lower than at any time since 1703, although the snowfall was not as great as some years of the early part of the nuineteenth century.—Ex.

IRISH WIT.

We have referred before to the unique department of "A Spyglass," in the Irish Bee Journal, and the spiciness of the editorials which characterize this sprightly and interesting journal. In the March number "A Spyglass" comments thus:

"Bee Papers—'The regulation b
journal of today has simmered dow
to the discussion of "When to put
supers." Thus, the American Be
Keeper, Editor Hill, sighs for the da
of "the Stingless Bee Association
America," with its 10-dollar subscri
tion to give the promoter a trip
Brazil. I should like to become a pr
moter of such an association here, bu
failing that, I don't object to be to
when to put on supers."

Editor Digges leaves it open to co
jecture as to whether he would esta
lish A Spyglass in some one of t
many "Bee-keepers' Paradises"
which we read, or whether he wou
send him to Helena, Montana, but
commits himself to some extent, as f
lows:

"We shall gladly subscribe to yo
association, if you allow us to fix yo
destination! H. E. Hill is nothing if
original. Give him a nice, fresh gho
and a 'punic,' and he will serve you
something more startling than m
supering. Beyond a doubt, the si
mering down process needs watchin

"WE GOT 'EM BEAT."

Some time ago we encountered
following inspiration (?) in a Virgi
farm paper:

"Honey Bees Outdone.—We got '
beat! Our formula makes fine, he
thy honey for 5 cents a pound. For
ula and complete directions mai
free for 20 cents, or free if you se
50 cents for the Inland one year. Ma
a fortune manufacturing this hon
put in glass tumblers. You can dou
your money and still undersell
others. Address Inland Revie
somewhere out in Ohio.

They say fortune knocks but once
any man's door; and as the writer
been patiently waiting for, going
seventy-six years for the cheery r
a-tap-tap of Dame Fortune's knuck
upon his cabin door, he was not sl
to recognize in this appeal a courte
invitation to become almost imme
ately very wealthy. It was like h
ing two or three state and natio
banks placed in one's stocking
Christmas time. And all so sudd
Visions of stately marble halls, au
mobiles, steam yachts, landed esta
stretching away to the horizon a
cattle upon a thousand hills, sped

panoramic succession before his bewildered imagination. This was his first real conception of what "frenzied finance" really meant; but it was gratifying to feel that patient waiting had been rewarded at last. However, it would not do to betray the fact that he was guilty of being associated with anything pertaining to the vanquished bee whom his benefactor-to-be had so completely put out of business. A letter head would give it away; so with the business sagacity of an Addicks with a lead pencil in his left hand upon a plain sheet of cheap paper, he wrote:

Inland Review:

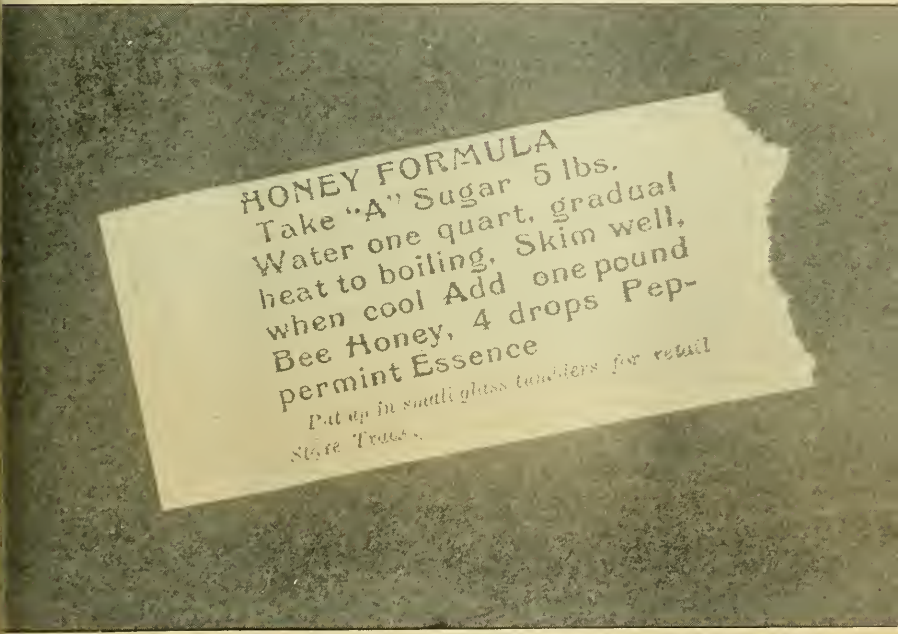
Akron, Ohio. Dear Sir. I am sending the twenty cts. an postage stamps, and hope you will send me your receipt that tells how to make good healthy bees honey for 5 cents a pound.

yours truly,

Harry Hill, Fort Pierce, Fla.'

The capital to obtain necessary information was not to be an obstacle in so important a matter; and as he had twelve cents that had not yet been spent, he had no great difficulty in securing a loan of eight cents more, from a friend who had but recently come to town. So it remained only to buy and enclose the stamps and wait. Again, he must wait, but a little while. But Uncle Sam's mail service is sure and rapid. The days dragged by until, at last, it came.

Here it is. We give it freely in fac simile to our readers, so that we may all henceforth enjoy luxury and idleness. Help yourself, dear reader:



HONEY FORMULA
Take "A" Sugar 5 lbs.
Water one quart, gradual
heat to boiling, Skim well,
when cool Add one pound
Bee Honey, 4 drops Pep-
permint Essence
Put up in small glass tumblers for retail
Store Trade.

Mr. J. L. Byer, Markham, Ont., wrote, March 11: "Our 300 colonies wintering out of doors seem to be wintering well, although they have not had a flight since November 1st." March 15, Mr. W. J. Davis, Youngsville, Pa., had this to say of the situation: "We are still in the embrace of winter. Mercury at zero this morning, with from one to two feet of snow on the ground. Bees in winter quarters since November 11, but they appear to be standing it well." Many similar reports have come in, to indicate that notwithstanding the severe winter, prospects for safe wintering are encouraging, and plans for taking care of the coming harvest are being made everywhere.

WANTS INFORMATION.

Shelbyville, Ky., Feb. 27, 1905.

Editor Bee-Keeper:

After keeping bees for twelve years I have just found out that I am but a novice. Last fall I put 11 colonies into the cellar and on February 22d four of them were dead. Two colonies were last year's swarms and two were old colonies. I have wintered without loss out of doors for the past six years, but have lost upon my first trial of cellar wintering. All had plenty of honey to run them until the beginning of the honey flow. The old colonies had the brood chamber full of honey, excepting a little place in the centre. I should like to ask a few questions:

1—What killed my bees?

2—Such a swarm should give as honey in the super the same year if there is a good honey flow?

3—Will it pay to kill the queen and allow a swarm to return to the old hive if one hasn't a hive to put them in?

4—What is the best hive for comb honey, the eight- or ten-frame size?

5—What is the best to use in the smoker? Is tobacco too strong?

A large per cent. of the bees that died had crawled into empty cells.

J. K. REESE.

1—It is not improbable that they were "killed" by too much honey. That is, they suffered from a condition known as "honey-bound." If the brood chamber is allowed to become clogged with honey in the fall months, the queen has no opportunity to lay eggs to the extent necessary to supply enough young bees to winter. The old working force soon die off and thus leave the colony depopulated. The queen must have room to breed.

2—Such a farm should give as much surplus honey as any colony in the yard.

3—No; it will pay to provide hives in advance for the reception of swarms. Bee culture never pays under such circumstances.

4—This is a debatable question that has occupied about as much space as any other subject that has been discussed in the bee journals. We prefer eight frames, if the Langstroth is in use.

5—Tobacco is not good for smoker fuel. Rotten wood, cotton rags, old fertilizer or grain sacks, the bark o hardwood trees, or almost any ver dry vegetable material will answer.—Editor.

BY THE ASSOCIATE EDITOR

In the American Bee-Keeper f March in the Bee-Keeping World, th translator expresses lack of convi tion from the experiments of Dr.Bru nich as to the virility of drones fro virgin queens.

Prof. Leuckret found that bo drones from virgin queens and fro fertile workers were equally as viri as those from fertilized queens.

Apropos of the discussion as to th value of double-walled and chaff hive versus single-walled and paper-protec ed hives, the following from the pe of Mr. P. H. Elwood, in the America Bee Journal for February 23, is of i terest: Writing of the late Ca Hetherington, he says: "He was close observer and quick to adopt i provements. Before he had been the business a half-dozen years he ha perfected a double-walled hive with chamber of confined air between a had applied for a patent on the sam On thorough trial he discovered th while warmer for awhile this doub wall prevented the sun from dryi out the moisture, and the hive so became damp and consequently col He made 600 of these and mecha cally they were probably as perfect hives can be made." In connecti with this Mr. Parkers' article in t March American Bee-Keeper can read with profit.

"HONEY MARKET UNUSUALL DULL."

From a contemporary:—

"The comb-honey lies that croppe out so frequently last summer and fal and the talk about adulterated hone in the magazines and health journa have done their deadly work, for th honey market seems to be in very ba way throughout the country just no We expect, however, that conditio will improve as soon as new honey out."

The public's knowledge of the be keepers feeding of tons of sugar t heir bees has nothing to do with it. o, oh, no! Certainly not, by any anner of means! Bee-keepers are onest and they wouldn't cheat the ear public. Poor, dear, deluded pub- ic. Blessed "child-like and bland" bee- eepers.

VILL WOMAN BE APPOINTED?

he Heads Eligible List from Which Bronx Bee-Keeper Will be Chosen.

Although Miss Emma V. Haggerty, f this city, stands first on the eligible st from which Park Commissioner chroeder is to appoint one of the hree apiarists whom he thinks he eeds to look after the city's bees in e parks in the Bronx, it is said to e extremely unlikely that she will re- eive the appointment. The position ays $1,200 a year.

Miss Haggerty is not only one of the irteen to obtain a rating of 70 per ent or better in the examination hich the Civil Service Commission olds for the purpose of providing ligible beekeepers for the city, but, competition with thirty-odd men, e stands clear at the head, with a andsome 97 per cent.

As not every one is called upon to ke a city beekeeper's examination, r even knows what a city beekeeper , the following questions from the xamination which Miss Haggerty assed are illuminating:

1. What is the ordinary size of a mmunity of the common honey bee? hat is the special function of the ueen, the workers and the drones in ch a community? How many are ere of each?

2. In what respect does the cell of e queen bee differ from that of other es?

3. Mention two ordinary diseases to hich bees are liable, and give the medy for each.

4. For what purposes has the prop- ration of bees been undertaken by e city? Decribe a plan to exhibit es for public observation. Illustrate sketch.

6. What is the usual cause of arming? How is it prevented? ow may a swarm of bees be recap- red?

7. What is the best way of protecting the public from being stung by the bees, and at the same time letting the public best observe their habits?

8. What happens when bees are left without a queen? How may a queen be provided?

9. From what cause do bees suffer in winter? What precautions should be taken to protect them while confined to their hives?

All told, the city has about thirty hives of bees. If present plans are carried out, and the three apiarists are appointed, the city will be paying at the rate of $120 a year a hive. Who gets the honey is one of the mysteries of modern municipal statecraft.

(The foregoing from a New York paper was sent to us last month by some unknown friend.—Editor.)

WINTER CONDITIONS.

Upperco, Ind., Feb. 9, 1905.

Editor Bee-Keeper:

Our winter here has been a long and severe one. The thermometer has registered as low as six or seven below zero. It has been very cold most of the winter. Bees have been shut in since October 1st, with the exception of a few days.

I examined one colony in January, one warm day, and the brood would equal one side of a Hoffman frame.

I thought that was very good, as much cold weather as we have had.

I see, in the January issue of the American BeeKeeper, that two patents for bee hives have been issued. Will you please state what it costs to issue such patents?

D. H. Zenckler.

We regret our inability to supply the information desired. Full particulars may be obtained, however, by addressing the patent solicitors who advertise in The Bee-Keeper.—Editor.

BEEKEEPERS HOLD MEETING.

Grand Rapids, March 10.—The Michigan State Beekeepers' Association held its annual convention last week. Fifty members were in attendance. The exhibits of honey and honey apparatus were large and interesting. The National Biscuit Co., displayed about 23 products in which honey had been used. The convention next year will be held at Jackson.

CONYNGTON ON COPORATE ORGANIZATION.

This volume is just issued and is similar in style, size and price to its companion volume, "Corporate Management," by the same author. This latter work has had a large sale among the leading attorneys and corporations of the country. The author of these books, Mr. Thomas Conyngton of the New York Bar, is a corporation lawyer of extended experience and is the author of several successful works on corporation law.

"Corporate Organization" is unique in several respects, and, dealing practically with the subject of incorporaation, is a timely work of more than ordinary interest. It contains much valuable matter that is found in no other volume. Special attention is called to the following points: (1) It states fully and clearly the possibilities of incorporation, showing just what its advantages are and how they may be best attained, what disadvantages and dangers may be encountered and how and to what extent these may be avoided or overcome. (2) It treats—from the standpoint of business and finance as well as that of law—all the important features of incorporation, such as capitalization, preparation of charter, organization of company, issuance of stock, etc. (3) It discusses practically many matters of vital importance to incorporators such as the adjustment of interest among incorporating parties, the protection of the minority, the maintenance of an agreed policy or management, the issuance of stock for property, the safeguarding of special interests, etc. (4) It discusses the use of voting trusts, holding corporations, underwriting and the other modern instrumentalities of corporate or pre-corporate activity. Its forms are of unusual excellence.

In short the work is a thoroughly first-class, up-to-date and practical manual of incorporation.

Published by the Ronand Press Company of 203 Broadway, New York. Price, postpaid, buckram binding, $2.70; sheep $3.20.

Mr. Fred A. Parker, than whom the American Bee-Keeper has no truer friend in the West, has been appointe inspector of apiaries for Santa Barbara County California. We congratulate both Mr. Parker and th Bee-keepers of Santa Barbara county.

There is nothing about a hive so important as the queen. She is the hear of the colony. From her comes th life blood, as it were, the young bee to take the place of those which ar wearing out and dying. — Morle Pettit.

With all the cold weather we ar having I think the bees are winterin well. January 1 it was warm enoug for them to come out, but since the they have been shut in.—F. Greiner.

Several of the "Apiculteur's" correspondents claim that the colonies wit a fair number of drones yield mor surplus than those which have non or only very few. The editor suggest that the presence of drones may incit the bees to work more actively in o der to provide them.—L'Apiculteur.

The government statistics given i France for 1903 show 1,793,205 col nies. The honey produced was 123,347 kilos, and the wax productic 1,815,999 kilos. (Five kilos are equ to about eleven American pounds —L'Apiculteur.

Honey and Beeswax Market.

Boston, March 9.—The demand for con honey still continues light with heavy stoc on hand. Fancy white, 15c to 16c; No. 1, 14 Extracted, 6c to 8c, according to quality.

Blake, Scott & Lee

Cincinnati. March 10.—There is little, any, improvement in the honey market he since our last quotation. We hope to rend a more encouraging report soon. Quo amber extracted honey in barrels and ca at 5½c and 6½c; White Clover 7c and Fancy White Comb Honey at 12c and 13 Beeswax, 28c. The Fred W. Muth Co

No. 51 Walnut St.

Chicago, March 8—There has been som what of an increase in the number of sal during the past four weeks. yet the volur has not been large, while prices are if an thing lower than in January, especially other grades than White Clover. Fan grades of White Comb bring 12½c to 13c; N 1, 12c, with some off color at 11c to 11½ Amber grades slow at 8c to 10c; Extract White, 6c to 7c; Amber, 5½c to 6½c, the pri being governed by quality, flavor and pac age. Beeswax if clean and good color, 3 per pound. R. A Burnett & Co.

199 S Water St.

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'e are always in the market for extracted honey, as we sell unlimited quantities. Send us a sample and your best price delivered here. THE FRED W. MUTH CO., 51 Walnut St., Cincinnati, Ohio. (5-5)

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ent=a=Word Column.

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H-Feb. tf

Farm & Real Estate Journal

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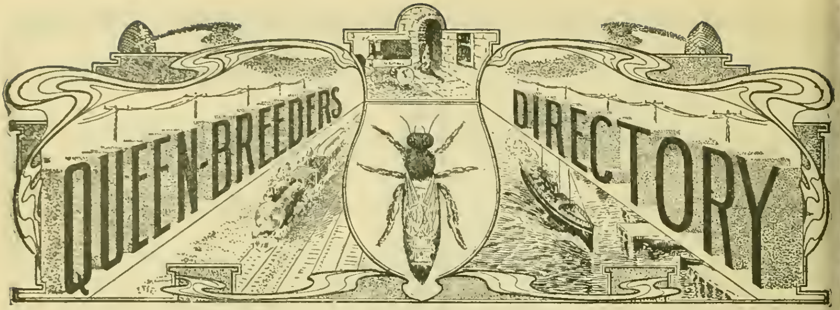

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AHEAD OF SHOOK-SWARMING

The March *Review* is now in process of preparation, and will be out about the middle of the month. One article in this issue will be by H. G. Sibbald of Canada, and he will describe a new system of management that promises to be away ahead of shook-swarming. It has these advantages: No shaking of the bees; no handling of the brood; no possibility of the queen being in the wrong hive; no danger of after-swarming; no increase unless desired (but easy to secure if wanted): no queen cells to hunt up and destroy; yet the whole force of bees may be kept together the whole season, and each colony may be requeened with a queen from a naturally built cell.

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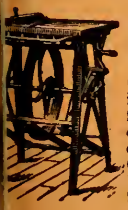

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1905

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W. Z. Hutchinson,

Flint, Mic

THE AMERICAN BEE-KEEPER

Vol. XV MAY, 1905. No. 5

SIXTY YEARS AMONG THE BEES.

By W. J. DAVIS, 1st.

THIRD LETTER—Continued from Page 68, April Number.

A FOOLISH story started by a
"Prof." that comb honey was
produced by the artificial con-
ruction of combs from paraffine, fill-
l with glucose and capped over by
achinery and done so nicely as not
be detected as a work of art, has
nocked many dollars from the ledger
the honest bee-keeper. But he, the
oresaid Professor, after years of
udgeling by the different bee papers
ually admitted it was only a scientific
easantry, like the manufacture of
tificial eggs—a proposition too ab-
rd for belief by any one.

Another "Professor," a lover of the
es, has taught that honey is nothing
ut digested nectar, and I suppose he
ould give all the bees he has, if he
s any, and his book too, to prove
is scientifically correct. I would
ggest a more appropriate term to be
aporated nectar. I know of no
getable product that when digested
any animal is good for any pur-
se but to enrich the soil. With
out 999 out of a thousand persons
e term "digested nectar," will pro-
ce a very uncomfortable sensation
the stomach. But, fortunately for
r business, but few believe such
uff; and all such teaching, whether
(would-be) friend or foe, militates
ainst the sale of honey, which I
lieve to be the purest sweet known
table use. The Hon. Mr. Whitcomb, of Nebraska, once said: "There is more nutriment in a pound of honey than in two pounds of beefsteak and more medicines than you can buy at any drug store for half a dollar." Small things often effect wondrous results.

Honey is mentioned 28, and honey comb nine times in the Bible, and sugar not once. The manufacture of glucose has also been detrimental to honey producers. A sweet that can be manufactured and sold by retail at two or three cents per pound will have buyers, no matter if not the healthiest food.

Another hindrance has been the way some bee-keepers dispose of their honey. I had succeeded in building up a good trade in my home market, but farmers having a few stocks of bees and producing a little honey to sell would bring it to town and sell to our grocers at just what they chose to give, perhaps about 2-3 what I was selling at. It might be a good article of honey, but poorly prepared for market and hence not very attractive. You can readily see the effect of one such sale. It virtually sets the price, at least for a time, and the man who makes a specialty of producing honey is put to a disadvantage. No wrong intended on the part of the small bee-keeper, yet an absolute wrong is done. The only remedy for this is for the apiarist to put his honey on the market in the most attractive shape. Let the sections be thoroughly cleaned of propolis, and if the wood is colored by age (as some sections will be) let them be scraped to whiteness with glass and sandpapered and put in neat shipping cases with glass in front, such as I have found for a number of years at the Falconer Manufacturing Company's plant at Falconer. N. Y. Let your honey be honestly graded. Put the finest next to the glass and then just the same quality clear through to the back of the case, and then if sold by weight, give sixteen ounces to the pound. Have a neat card to tack on the case with the producer's name and address. I notice by market quotations, particularly in the West, honey so much per case; a mode of selling I know nothing about by experience.

Having said this much about selling honey, we will now consider how to get the honey. I shall consider only the production of comb honey. First I consider the 4 1-4x4 1-4 sections, an appliance which has come to stay; or in other words, the one pound package can not well be improved on. To produce a smaller package would be to produce less pounds. To vary the shape or size of sections would involve extra expense of cases. The change of size or shape of sections may be more benefit to supply dealers than to honey producers. With low prices for honey the expenses must be kept as low as possible. I prefer a section seven to the foot, without separators.

These wide sections with separators leave too much wood in sight when the section is filled, and any separatored sections divide the colony into too many small apartments for best results in quantity. Combs of more uniform thickness can no doubt be secured by the use of separators, but a very fair average can be produced without them and the extra cost and labor of cleaning off propolis be avoided. I use cases with pattern slats and tier up the cases during a flow of honey by raising cases nearly full, and putting an empty one between the partly filled case and the brood nest, provided honey is coming i freely; but if the honey flow seem near an end, put empty case on to It requires a knowledge of the flor of your field to know just when t put on or take off cases, and it woul be a wonderful help if we could bu know the kind of weather we are t have a few days in advance. Eve the weather bureau can help us b little, and I have never been able t exercise the least faith in weathe prophets who claim to tell us a whol year in advance just when it will rai and when it will shine. Yet I hav seen some intelligent people wh claim to believe such predictions.

I do not manage bees by superst tions. I never ring any bells or to horns to induce a swarm on the wir to settle. Death has twice invade my family circle, but I did not go ar tell the bees. But I have a stron presentiment that when the mana ing hand of the Davis family h fallen by "the last enemy" that t bees will go too, for of five childr the bees have assisted me in rearin not one takes kindly to bee-keepin I am inclined to think that bee-kee ers are born, not made, and the san may be said of every professio We have all seen men in t ministry, in law and medicir that would much better fill position in the work shop the field. It seems a great waste material to take what would make good farmer or mechanic and make poor doctor, lawyer or minister him. But I will carry that thoug no farther, but next discuss "T Hive I Use," as Bro. Doolittle wou say. I prefer a free hanging fra with bee-space at top, bottom a ends, of the Langstroth type, but r so long. I used for a number years this frame with nineteen in top bar, that is very good and will low four lengths of sections in t supers. But my location, northweste Pennsylvania, is nearly 42 degrees latitude (42 degrees being the bou ary line between the states of N York and Pennsylvania) our wint are usually long and cold, and it necessary for the bees to cluster warmth at least seven months out the twelve; four of the seven spent in winter quarters and three summer stands with uncertain te peratures. It may be warm and nay be cold. And as the bees cluster or warmth they usually form a globe r round ball, no matter what the size r shape of the hive, I concluded that he long frame left too much cold r unoccupied space, either at ne or both ends of frame, vhich if warmed must be by the onsumption of stores.

About twenty years ago, I began, n a small way, to use a frame with ourteen-inch top-bar, which gave mple length for three sections in upers. The shortening of the frames id not necessarily reduce the size of he hive, only use more of them. fter testing them to my satisfaction, adopted that size of frame and at resent use no other. For comb-oney I use from eight to twelve rames per hive.

I used to think in box-hive days, hat a colony building their combs om front to rear would be better ian one that chanced to build from ide to side. But with frames I canot see that it makes any difference hether the frames run from front to ear or cross-wise of hive and I have sed them both ways and do every ear.

The advantages I have obtained ith this size of frame are: First, tocks build up more rapidly in the pring, owing to the hive being armer, (it seems needless to say hat a given number of bees, say 5,000, an easier warm 500 cubic inches of pace than they can 1,000 inches.) econd, The bees enter the sections arlier. Third, They give a larger er cent. of their white honey in secons. Fourth, They build nicer rood combs, less drone comb and in tter part of the season fill the brood ombs with ample stores for winter se.

I wish to make one point plain to eginners: That a swarm of given trength will collect just as much oney in one kind of hive as another, rovided all are equally acceptable to e bees. Whether a hollow log, quare box-hive or frame-hive. The ain thing so far as hive is conerned, is the controlling of their bors and controlling the size of the rood chamber to meet changing conitions from cold to heat and from eat to cold, such as the revolving ear brings to us in this latitude, hich is the condition of a vast majority of the bee-keepers of North America. I am not talking to the veterans in bee culture, for most of them are as stiff-headed as I am, but to the vast army of inexperienced.

My frames are 8 1-2 inches deep between top and bottom bar, and 12 1-4 between end pieces, and when combs are built down to bottom bar as mine usually are, each frame gives about 200 square inches of comb surface, and eight frames 1,600 square inches and as twenty-five worker bees can be raised on each square inch of comb surface 40,000 workers can be produced every 21 days. But allowing one-half of the cells to be occupied with honey and pollen, we have still room for nearly 1000 baby bees per day in each hive. If you want a faster increase add more combs. My standard hives in my home yard are mostly eight-frames —in out apiaries 12. But each should adapt his management to his own locality.

Bro. Doolittle and Dr. Miller, I believe, leave their bees in winter quarters until the soft maple blooms. I set mine out as early in March as they can fly with safety and they remain on their summer stands unless severe cold should ensue. Bee-keepers have long held that bees wintered on the summer stands, if they do pull through the winter are more vigorous than those wintered in cellars. Be that as it may, I prefer to house mine for about four months of the coldest weather. Queens begin to deposit eggs in January whether wintered in or out, first forming a small brood-nest and enlarging slowly. An early cleansing flight stimulates brood rearing, but continued cold will check it and wisely so, for large quantities of brood prevents the close clustering of the adult bees, for bees must have empty comb in which to cluster. As a general rule it is not best to stimulate brood rearing in cold weather.

Once upon a time some one recommended mixing flour and honey and plastering it into the combs to stimulate early breeding. I tried two colonies and it did set them to breeding in March, but the weather was cold, and the result was that I lost both colonies before warm weather came.

It is a nice question to get our

frames the right depth. A deep frame is probably better for wintering, but not so good for securing comb honey. Bees in this locality get but little honey until the soft maple blooms, which is about the 20th of April. It yields pollen and honey bountifully if weather conditions are right, and the bees pack the combs that are next to the brood solid with pollen. When that is done, move the said combs of pollen and put an empty comb between pollen and brood. Would not recommend spreading the combs that contain brood. By giving empty combs as above the brood nest will expand quite fast enough for the slow approach of warm weather. The presence of fresh pollen and honey in the spring give new life and energy to the stock, and queen and bees will vie with each other in their haste to fill the hive.

This harvest usually lasts about ten days which bring us to the first of May and the eggs laid at this time are the bees to begin on the white clover, which opens here about the 10th of June. But between these (soft maple and clover) the dandelion, hard maple, fruit blooms, June berries and several minor sources keep the bees busy. Another source of honey, which seems to have come into prominence here in the last few years, is a trailing vine with a small blue blossom and called here "cat's foot," has proven itself a good honey yielder. In meadow ground it does no harm but is troublesome in the gardens, as it is not easily killed.

About June 10th or whenever the brood chamber is full, put on the section cases, (I have had sections filled by the last of May, but not often.) You may have a lot of sections saved over from last season, filled or nearly so, with white comb, which you cleared last fall, either by throwing it out with the extractor or letting the bees take it out. Fill one end of case with sections of comb and the balance of case with new sections well guided top and bottom, if full sheets are not used. These sections of comb will serve as bait to start the bees working in the supers. Do not put in a section of comb and an empty one next to it. If you do, you will have very uneven sections, unless you use separators. "If summer signs auspicious ride" tier up as circumstances seem to require. Do not let bees lay in idleness on out side of hives during a honey flow from want of room to store honey Remember you are working for com honey, and whenever a colony i strong enough to work in the sec tions, there is a possibility of swarm ing.

I should have said before that du ing the month of May and before th hives become filled with bees, clip on wing of every laying queen in yo yard. It seems to me I would n attempt to keep bees without cli ping the queen. With clipped quee we have absolute control of the bee Two or more swarms may issue or near the same time, in which ca they are very liable to cluster t gether, but if the queens are clippe it is an easy matter to capture the and hold them as prisoners in wi cages until the swarms are hived you desire, and then supply the with queens. Some queens we m consider very valuable, others not valuable. If you have them clipp you know "which is which."

HOW TO CLIP QUEENS.

For a general clipping job, I pref a warm day as early in May as p sible, when the bees are getti honey enough to be pleasant to wo with and use but little smoke. L out the frames until the queen found, and if you have no assistant hold the frame, stand it on end n the hive, with queen near the lo end of comb. As she slowly cra up the comb, take one wing betwe thumb and finger of left hand a with pair of sharp scissors, clip t wing, while the feet of the queen still on the comb. Do not take t queen into your hand, or betwe the thumb and finger as some advi as you may impart to her majest scent to which the workers are accustomed, and they take her fo strange queen. Being a little frig ened, her actions would tend strengthen their suspicions and workers will ball their own queen. have found many young queens they returned from their bridal t so balled, and they were saved o by caging for several hours in own colony.

Do not hesitate to clip your que because some timid one has said cl ping queens' wings will impair t wing power of her progeny—

vorker bees. Sheep growers of this ection of the country have been in he habit of cutting off their lambs' ails, for good reasons, and I have iever heard of a strain of tailless heep being produced yet. And if any eader of the American Bee-Keeper ver hears of such a case please pub- ish it to the world. The only use of vings for a queen bee after fertiliza- ion, is to enable her to go with a ew swarm to some hollow tree in he deep recesses of the forest, if here still remains such a place.

The shade and fruit trees I set ut in early manhood have grown too ill for a man of 77 to climb, even ith the aid of an 18-foot ladder. In ict, any man of that age ought to ave learned better than to try such feat.

This is how I manage young warms: When I see a swarm emerg- ig, I walk out with a wire queen ige, and usually before a swarm is l out I find her ladyship on the rass, and I place the open end of ige over her and she crawls in. I ip in a plug and lay the caged queen ear. Set the old stock off a few feet id place an empty hive, (pref- ably of same color as the old hive) i the old stand and lay my caged ieen on the alighting board of the ew hive, step back and await devel- ments. After flying awhile, and scovering that their queen is not ith them, they will return to the old and and when they begin to run in eely, I pull the plug from the end of e cage and let the lady walk into r new home with her children. iould two or more swarms issue at near the same time (which fre- iently happens) they are very liable cluster together. In this event ey will remain clustered much nger than a single swarm, and it is metimes necessary to take a part the bees in a swarm catcher and ake out in front of the hives pre- red to receive the swarms, and get em to "going back" as we call it. ie glad hum of "mother's found" ll speedily attract the flying bees d the two, three or four swarms ll soon be hived. Let the young arms remain on old stands and if e of such new swarms has received pre than its share of bees, it will on be indicated by a crowded con- ion, and the bees will cluster on the outside of such hive, in which case take a thin broad board or pane of glass and gently scrape off the bees from the bottom of cluster upward and carry to the hive that has not received its share of bees.

To be Continued.

NOTES BY SWARTHMORE.

The great value of queen-excluding metal is not half appreciated by the majority of bee-keepers. I think we should place the invention on a par with comb-foundation when usefulness is considered.

I am convinced that queens become aware of the presence of sealed queen-cells upon the combs of their hives entirely by feeling. Uncapped queen-cells are seldom if ever disturbed by reigning queens, but as soon as capped will be torn down by them.

It is not always the fittest queen that survives in a batch of natural cells. It is generally the first hatched, and in consequence the strongest at the time. Thus many fine cells are destroyed each year.

Bees prefer a one-inch auger hole to all other forms of entrances. This may be proven by boring a hole into the back of any hive having a slot entrance at the front.

During heavy flows of honey cells are always poor for the simple reason that the young bees are more intent on storing honey than in feeding larvae.

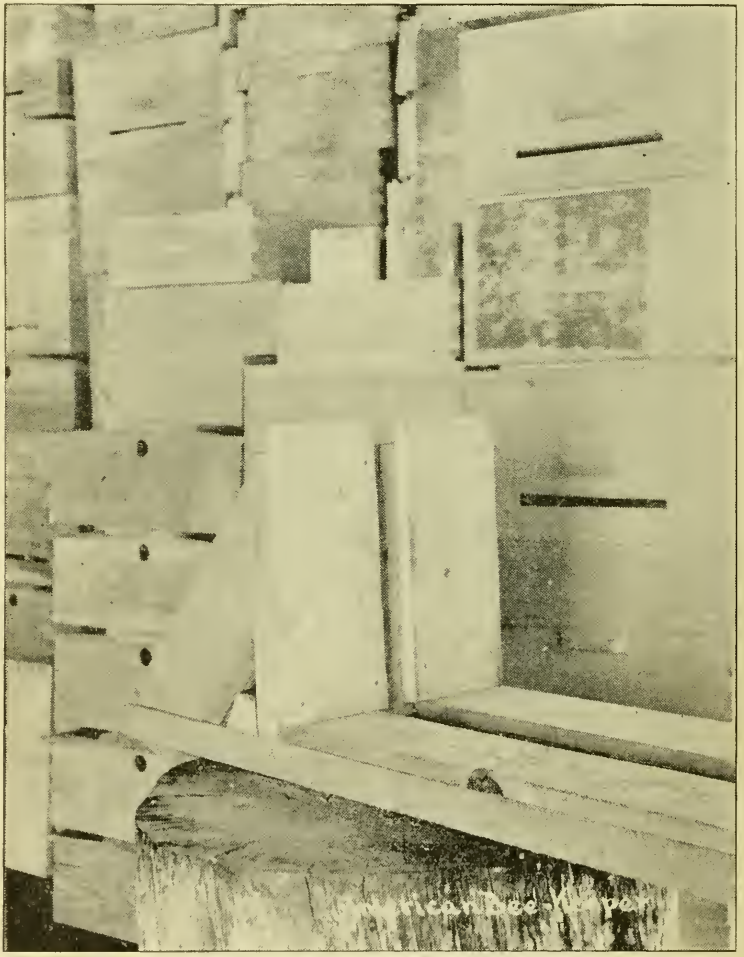
The size and condition of a queen while yet in repose can be tested by carefully tilting the cell from side to side. The trained hand can readily detect an extra strong queen by the jar when the body of the queen strikes the opposite side of the cell.

Extra prolific young queens when first beginning to lay will deposit their eggs uniformly, all pointing in one direction, usually with a downward tendency.

Virgin queen with broad thorax, cob-like form and stout legs, broadly spread, invariably turn out to be long-lived and prolific. Such queens are seldom lost at mating time.

To quickly supply a comb with water for use in a cell-building colony, fill a jar-feeder and sprinkle the water into the cells as one shakes salt from a salt-cellar at table. Lay the comb flat upon the ground and after spraying the water on one side turn the comb over and fill the other. Combs may be filled with syrup for feeding purposes in this way quite satisfactorily.

Swarthmore, Pa., Mar. 31, 1905.



STRITMATTER'S ERECTING FORM.

A HANDY DEVICE.

By F. J. Strittmatter.

EDITOR AMERICAN BEE-KEEPER:

I send you herewith a photo of a combined work-table and square which I devised something over a year ago for use in putting together bee supplies. Any bee-keeper can make a similar one, but be sure it is exactly square.

Formerly I used a regular steel square but it was not satisfactory sc I devised this which makes putting together bee supplies a pleasure. Jus shove your parts into place and nai them and you have your box exactly square.

Another advantage: almost any boy of fourteen or fifteen can with the ai of this device nail up hive bodies nd many other parts about as well as man can.

The idea of the board nailed on ach side is to provide an opening to ccommodate the hand-hold cleats on he hive.

I use a chaff hive and I nail the leats on the end boards before putting them together as I find I cannot asten the cleats substantially on the hin end walls (3-8 inch) after the ive is together.

I also send you a photo of my ome apiary. This picture I took last eptember. I had an assistant queeze the bulb while I am seen in e foreground. I read five bee jour-als and like the American Bee-Keep-r very much.

radley Junction, Pa., Jan. 16, 1905.

American Bee-Keeper.

MR. STRITMATTER'S APIARY.

Vicks Family Magazine, now in its th year, is a publication that well erits a place in every rural home. he April number, dealing as it does ith springtime topics in both a prac-cal and sentimental manner, be-omes a veritable inspiration to na-re lovers.

THE HONEY PRODUCERS' LEAGUE.

By W. Z. Hutchinson, Secretary.

A CRISIS HAS been reached in bee-keeping. The time is now here when bee-keepers must band together, as never before, fight an insidious foe, and cope with the conditions of modern times. In short, the wide-spread ignorance regarding the value of honey as a food(its deliciousness, cheapness and digestibility), coupled with an almost universal belief in its adulteration, which belief is fostered by the continued publication of untruthful stories concerning so-called manufactured comb honey, to which may be added the fact that cheap syrups are being pushed upon the market with great vigor—all these combined are depressing the honey market beyond all precedent; and, unless something is done to counteract these influences, our occupation, or, at least, a good share of its profitableness, will soon be gone.

A large share of last year's honey crop is still unsold, while the market is practically dead, as is easily shown by reference to the market reports. The crop of the coming season will soon be here, and, should it prove a bountiful one, with last year's crop still unsold, where will prices go then? We may as well face the situation squarely. Then comes the all-important question: What shall we do about it?

Three or four of us began recently to discuss this question, privately, by mail, and we decided to act promptly, to the extent of summoning (some by telephone and telegraph) to a conference in Chicago, some eight or ten representative manufacturers, dealers, publishers and honey-producers. As a result, such a meeting was held March 14th and 15th, the whole two days being occupied in forming an organization, and in discussing ways and means whereby said organization can increase the demand for honey.

The first step was the drafting of a constitution which reads as follows:

CONSTITUTION.

Art. I—Name and Headquarters.

Sec. 1—The name of this organization shall be "The Honey Producers' League."

Sec. 2—Its headquarters shall be Chicago, Ill.

Art. II—Objects.

Its objects shall be to create a larger demand for honey by popularizing its use among the consuming public through advertising in newspapers and magazines its great value as a food, and by such other methods as may be considered advisable by the Executive Board. Also by publication of facts concerning the production of honey to counteract any misrepresentation of the same.

Art. III—Membership and Dues.

Sec. 1—Any bee-keeper may become a member by paying to the Manager an annual fee of $1.00 for each 20 (or fraction of 20) colonies of bees (spring count) he owns or operates.

Sec. 2—Any honey-dealer, bee-supply dealer, bee-supply manufacturer, bee-paper publisher, or any other firm or individual, may become a member on the annual payment of a fee of $10.00, increased by one-fifth of one (1) per cent. of his or its capital used in the allied interests of bee-keeping.

Sec. 3—The annual dues shall be payable in advance, on or before May 1 of each year.

Sec. 4—Membership shall cease when dues are in arrears three months.

Art. IV—Executive Board.

Sec. 1—An Executive Board consisting of seven members shall be elected by mail ballot annually in the month of March (after the first election), the ballots to be sent to the membership between March 1 and 5, the polls to be closed at noon Apri 1. They shall be the seven members receiving the highest number of votes cast. In case of a tie-vote, the other members of the Board shall decide it

Sec. 2—The votes shall be mailed to the Secretary, who, with anothe member to be selected by the balance of the Executive Board, shall togethe count the votes and certify the resul to the Manager, who shall then forward copies of the same to the United States bee-papers for publication, and also give same in his annual report.

Sec. 3—The Executive Board shal have the general management of th League, and shall elect from thei number the officers named in Articl V, Sec. 1, who shall execute the orders of the Board, and hold their severa offices until their successors are elected and qualified.

Sec. 4—The Executive Board shal meet annually, on the third Wednesday in April, in Chicago, for the election of officers, and for the transaction of such other business as may regularly come before it.

Sec. 5—Special meetings of the Executive Board shall be held when called by the President, upon request o three or more members of the Board

Art. V.—Officers.

Sec. 1—The officers, shall be a President, Vice-President, Secretary Treasurer and Manager.

Sec. 2—The duties of the Presiden and Vice-President shall be such as usually devolve upon these officers.

Sec. 3—The duties of the Secretary shall be to keep a record of the meetings of the Executive Board, (and to count the ballots of all votes of the membership, as provided by Art. IV Sec. 2, the result of which he is to forward at once to the Manager.

Sec. 4—The Treasurer shall keep a record of all moneys received from the Manager, giving his receipts therefor; and he shall pay out funds only on bills approved as per Sec. 5 of this article.

Sec. 5—The duties of the Manager shall be to conduct the actual business of the League as directed by the Executive Board; to keep a list of the membership; to account for all moneys received, and turn same over to the Treasurer, taking his receipt therefor; to prepare and mail in March of each year, to the membership, an annual report containing a financial statement, and such other matters as would be of interest to all concerned, including all ballots and amendments; and to issue orders on the Treasurer for payment of all bills, when countersigned by the President.

Sec. 6—The Treasurer and Manager shall each furnish such bond as shall be satisfactory to the Executive Board.

Art. VI.—Salaries and Expenses.

Sec. 1—No salary shall be paid any officer of this League, but the actual expense of holding meetings of the Executive Board (when they deem uch necessary) shall be paid from he general expense-fund.

Sec. 2—There shall be an allowance of five (5) per cent. of the cash reeipts to cover all general expenses, uch as printing, meetings of the Excutive Board, etc., the remaining ninety-five (95) per cent, to be applied on the advertising proper.

Art. VII—Amendments.

This Constitution may be amended by a two-thirds vote of the memberhip at any regular election, provided uch proposed amendment be first ubmitted to the Executive Board nd approved by it.

Minutes of First Meeting.

A temporary organization was effected and the foregoing Constitution dopted, when, upon motion of Ralph V. Boyden, the following members were elected as an Executive Board: Dr. C. C. Miller, W. Z. Hutchinson, rthur L. Boyden, George W. York, . P. Dadant, N. E. France and eorge C. Lewis.

A permanent organization was then ormed, and the following officers ected: President, Dr. C. C. Miller; ice-President, George C. Lewis; Secetary, W. Z. Hutchinson; Treasurer, rthur L. Boyden; Manager, George . York.

Before adjourning it was resolved to do no general advertising until there is at least $5,000 in the hands of the Treasurer; the Manager was instructed to take the necessary steps for securing the incorporation of the League; and the Secretary and Manager were appointed a committee to prepare the necessary literature for use in soliciting membership.

SOME QUESTIONS ANSWERED.

While the Constitution quite clearly outlines the aims and objects of the League, a few questions will naturally spring to the lips of one who contemplates joining its ranks, hence it may be well to answer in advance as many as possible of them.

Naturally, the first question asked will be: "Why form a new organization, when the constitution of the National allows the use of its funds for such work?" Principally, because the National has not enough money at its command to do the work effectively, and it could not raise enough without a change in its constitution, as, at present, only one extra assessment of $1.00 per member can be made each year, while the work of advertising, to be effective, requires thousands of dollars at once.

Perhaps some will ask why the matter was not discussed in advance in the bee-papers, and a public meeting called? Why was the matter kept quiet, and the work done with apparent secrecy? It was done so quickly, simply to save time. When the true situation had fairly dawned upon the three or four who were first discussing the matter, it became equally apparent that only by the most prompt and active work could anything be done that would help the sale of the last year's honey crop before the coming of this year's crop.

Some may wonder why the members of the Executive Board were all chosen so near Chicago. They were thus chosen that they might quickly and cheaply attend Board-meetings. Should an important question requiring immediate action come up, telegrams sent every member in the afternoon would enable them to be in Chicago the next morning. If any mistake has been made in the choice of officers, it can be corrected at the next election. As it is, however, it is doubtful if a set of officers can be chosen who would have more completely at heart the success of the undertaking. Besides this, they are all friendly to one another, and will work harmoniously as a unit.

It may be asked why no salaries are paid the officers. If these men are willing to give so freely of their money, they should be equally willing to give their time; besides if they were paid salaries, many might be inclined to look upon the whole thing as a scheme on the part of the officers to put money into their own pockets. As it is, these men are really putting in their time, money and energies, expecting no reward except such as will come to them from the improved conditions of bee culture. Only as honey-producers are benefited, will any benefit come to manufacturers, dealers and publishers, yet a heavier burden is placed upon them than upon the actual honey-producer. The contributions of the Board-members alone will reach nearly $1,000.

Every one, will, of course, be interested in knowing what forms of advertising will be adopted. Mainly that of advertising in the daily papers and magazines. (No advertising will be done in the bee journals, as that would be simply a waste of money). Probably the first feature will be that of killing, or removing, the false beliefs regarding the manufacture of artificial comb honey. Large space, perhaps one-fourth, or one-eighth page, will be used in leading dailies, a large heading reading something as follows:

$10,000 FORFEITED!

Then will follow an explanation and refutation of the matter, and the offer of $10,000 as a forfeit to any one who can show a sample of honey that has been produced artificially. Of course, care will be taken to word the offer properly, so that no technical advantage may be taken. The best talent of the country will be employed in preparing and placing the advertising. Many papers that publish these advertisements will probably be willing also to publish articles on bee-keeping written with a view to increasing the demand for honey. Possibly firms that print "patent insides" for other newspapers may be induced to use such articles.

At fairs and exhibitions, it may be advisable to have educational honey exhibits, together with the distribution of suitable literature. Possibly it may be well to put stereopticon lec turers in the field; but, as has alread been stated, newspaper advertisin will be the main feature.

AN ENCOURAGING INCIDEN

Let me tell just one little inciden On the train while going home fro the meeting, I fell to talking with young man who occupied the se with me. As we became somewh acquainted, I told him of the object my trip to Chicago, going somewh into detail. In reply, he said, in sub stance:

"At our home we are fond of bis cuit and pancakes, with honey o maple syrup. We send down to Ve mont, to an acquaintance, to get th maple syrup, as that is the only wa we can feel certain we are getting th pure article. We don't buy hon very often, because, while I had nev heard how the story started, as yo explain it, I had been lead to belie that a good share, even of com honey, was manufactured stuff (mos ly paraffine and glucose) and I didn care to eat it. I am very glad to ha met you and to have it proved to m so conclusively that I can eat com honey, and feel that it is the genui article."

Friends, there are millions of m and women just exactly like m chance acquaintance, and, in t language of the street, it is "up us" to convince them of the error their belief. If we could induce o million of them to step into t groceries tomorrow and each buy pound of honey, what do you suppo would happen?

This is the work for us to do, and is the most important work that h been taken up in our line in many long year. Every other industry pushing its products upon the mar ets by every means imaginable; a we to sit supinely down and let igno ance, misrepresentation, and busines enterprise, push our product off t earth? See how new and unknow things are pushed to the front by t force of advertising; let us not l behind, but use this new force modern business—advertising— push our delicious product into t position it so richly deserves.

Just a parting word: Don't wait "see how it is going to turn out." others are putting in their time a money for the good of the cause—

accomplish something that will help you—meet them half way, join hands with them, do it promptly, and success is assured.

W. Z. Hutchinson,
Flint, Mich. Secretary.

PROPOLIS FROM START TO FINISH.

(Translated from Le Rucher Belge, by Adrian Getaz.)

IF AT THE end of summer we take a small branch from a tree we see at the base of each leaf a bud. This bud must remain undeveloped but alive during the whole winter. To that effect it is enclosed in a set of dry scales and these are covered with a coat of varnish. When the spring comes, the warmth of the sun softens the varnish and the ascending sap forces the scales apart and lets the new leaves and branches come out freely. That varnish is what we bee-keepers call propolis or bee-glue. It is far more abundant on some kinds of trees than others, and the quantity gathered by the bees is therefore much greater in some localities than in others. In some places its excess constitutes a regular nuisance.

In gathering propolis the bees first pull it off in shreds with their mandibles, pass it to the front legs and these to the others and finally to the pollen baskets and it is thus carried to the hive. The bees do not store propolis like the honey or pollen. They use it at once. Those that come in loaded with propolis cannot take it from the pollen baskets without the aid of other bees. These pull it off in threads and carry it where wanted. The bees use propolis chiefly to fill up the cracks, holes or other places too small for them to go through. All the interior of the hive is varnished with a coat of propolis; walls, frames and even sections if left long enough. Sometimes they use it to make the entrance to the hive smaller. It is said that it is to prevent the entrance of the large night butterfly called "sphynx tete de mort." This may be, as in some sections of this country (Belgium) where that butterfly does not exist, the partial closing up of the entrance does not occur.

If the presence of propolis is an advantage to the bees, it is not so to the bee-keeper. The covers, supers and brood nests are sometimes fastened together so hard that it is next to impossible to pull them apart. The frames are fastened to the rabbets that support them and if they happen to be too close to each other, they are invariably glued together.

Some kinds of propolis cause redness and a kind of eruption on those who have delicate hands. Washing the hands with a light solution of ammonia will do away with the trouble.

Notwithstanding the precaution that the bees will take to fill all the cracks with propolis, the moth worm get in as in warm weather the propolis is soft enough to allow the worms to burrow through it. The moth frequently deposits her eggs on or near such cracks. When fresh propolis is yellow, but in getting old it turns brown. When warmed, propolis becomes quite soft and can be kneaded and drawn in threads. It has an aromatic odor. When burnt, this odor becomes decidedly resinous. By distillation a strongly perfumed essential oil can be obtained. Propolis does not dissolve in water, but dissolves perfectly in alcohol, ammonia and spirits of turpentine. These solutions when filtered constitute an excellent varnish. In Russia, where wooden utensils are much used in the household, the following kind of varnish is prepared: Two parts of propolis, one of wax and four of linseed oil. The oil is heated but not enough to boil. The wax and propolis are put in and the whole stirred until thoroughly mixed. The wooden utensils are then plunged in it during ten or fifteen minutes, then withdrawn and polished by rubbing with a woolen rag. The feeders made of wood could be treated the same way. The mixture, when hot, might be applied with a brush.

Propolis can be used as a cement to stop cracks of water pipes, and any utensil not submitted to too much heat. Broken china or glass can be mended with it.

An excellent ointment for all sorts of wounds and bruises can be made with a mixture of propolis, wax and tallow, heated together. It is used yet extensively in some countries.

The smoke of propolis is excellent to subdue bees, and will do it even upon those with which the usual fuels fail. The best way to use it is to put it in some cotton rags, roll these rags and put them in the smoker so that the propolis be scattered through them.

THE SHALLOW vs. DEEP FRAME CONTROVERSY.

Reply to Mr . W. W. McNeal
By T. K. Massie.

IN THE Bee-Keeper for September, page 179, Mr. McNeal, replying to Arthur C. Miller, says: "But it seems he (Mr. Miller) has rather substantiated the correctness of my claim—that hives shallower than the Langstroth do not properly meet all the requirements of a colony of bees during the cold of winter and early spring. (We say this is correct. We also claim that the Langstroth is too shallow to "properly" meet all the requirements of the bees during winter and early spring or any other part of the year.) Those conditions that favor best the welfare of the bees do not serve the interest of the bee-keepers so well. Either one or the other must be the loser and usually it is the bees."

The above is true, every bit of it, but if we can have a shallow frame hive which meets all the requirements of the bees far better than the regular Langstroth, giving us a deeper frame for wintering, one, while not made for "man's special benefit" alone, which looks to the welfare of the bees first and yet retains all the advantages to man that the Langstroth does and more too, then where does Mr. McN's objections to the shallow frame hive come in? It is evident that it is not the principle of the shallow frame he objects to, for he says that "shallow hives were a great fad" with him at one time. Then it must be wrong principles of construction that he is combating.

Again he says: "Man's own convenience has gradually encroached upon that of the bees till in the construction of the modern shallow hive, Mr. Miller tells us it was designed for man's especial benefit." (True again) * * But hive manipulation, however systematic it may be with shallow hives, cannot make these hives as warm as hives of natural built combs." In this Mr. McN. is very much mistaken. It also proves that he has never had experience with shallow hives, properly constructed We think the expression of "natural built combs" must have been a slip, for certainly a shallow hive would contain no combs that were not "natural built."

"The divisible brood-chamber must have outside protection to make it as warm as a large single-story hive of the same capacity would be without outside packing." Not at all, Mr McN. You are again mistaken. The ideal hive has frames only 7 1-4 inches deep and yet it is warmer than any "single-story" hive can be.

"When a colony of bees has weathered the bitter cold of winter and its vitality is far spent, the arrangement of the combs for warmth and protection is of the greatest importance when breeding is begun in early spring. We all know that brood can not be reared profitably where chilling drafts of air circulate." (Right. "The brood chamber that is made u of two cases of shallow frames can not save the energy of the bees as i should, owing to the great amount o cold air passing around the comb and through the very heart of th brood-nest." Wrong, altogethe wrong, which goes to further prov what we have stated above, that M McN. never had experience with properly constructed divisible shallo frame hive. "If I mistake not M Miller makes good capital of the theory of the deep or tall section bo whichever you choose to call it. I fact nearly all the advocates of sha low hives whose writings have com to my notice hold to the belief tha bees will complete a deep sectio quicker than one of a square shape Funny, isn't it? that a principle o hive construction said to be so utterly at variance with the instincts o bees when employed in brood-chamber, it should be so mutually beneficial in super arrangement. With al due respect for the opinions of thos who differ with me, I will add tha sectional brood-chambers and system is founded on the strength of artificia resources and unless it has the backing of the sugar barrel it is necessaril shorn of its chief allurement and ceases to be practical." Yes, we advocat the use of tall sections, and, for th same reasons we advocate deep frame (in shallow form.) Yes, its funny to see the "standard" advocates contradicting themselves, continually, in their wild efforts to uphold a prejudiced theory. But properly construced hives of shallow frames, are not formed on "artificial sources," nor dependent upon the backing of the "sugar barrel."

Taphet, W. Va., Sept., 16, 1904.

DISEASES OF BEES.

(A small armful of copies of the paper containing the following, relating to the Worcester meeting, was sent to this office by various members, and the matter was put in type for the April edition, but was necessarily crowded out of that issue. Since that time Mr. Miller has taken a place on our editorial staff, and the discourse will therefore be the more interesting to our readers.—Harry E. Hill.)

Members and guests of the Worcester county bee association dined, met socially and listened to an address on diseases of the bee, by Arthur C, Miller, of Providence, followed by open discussion, in Horticultural hall, yesterday afternoon. It brought together as many people interested in the busy bee as has ever been congregated in Worcester county, making the most interesting gathering of people conversant with the culture of honey bees that central Massachusetts ever saw, the enthusiasts say.

It developed that the disease of the bee so far as the temperate zone is concerned is not a serious problem. Points were given out that the safest way to harbor bees so as to prevent winter killing is to provide dry quarters, with colonies in proportion to the amount of food supply.

Arthur C. Miller, the speaker, is considered authority on honey bees in the United States, and for this reason his audience was larger than usual, and his subject was one which the average bee-keeper is vitally interested in. Following his talk he withstood a rapid fire of questions which were asked by the Worcester county bee-keepers, in hopes to solve some perplexing questions which jeopardize the industry in this part of Massachusetts. Those taking part in the after speech discussion included: President of the Worcester County Association, F. H. Drake, of East Brookfield, J.L.Day, of Berlin; O. B. Hadwen, S. A. Burges, Horace P. Jacobs, of Auburn and others.

Dinner was served in Horticultural Hall at 1 o'clock. For an hour this entertainment was furnished by caterer C. S. Yeaw, after which there was a social half hour, the meeting being called to order at 2:30 o'clock and continued until 4:30.

President Drake called the meeting to order and introduced A. A. Hixon as presiding officer. After remarks of welcome by Secretary Hixon of the Worcester horticultural society, O. B. Hadwen, a veteran horticulturist, was introduced. He told of the bee being the first live stock he kept on his farm, and of the profit and pleasure it furnished beside being of inexhaustible study in nature.

Burton W. Potter, president of the agricultural society, said he first kept a hive of bees for pleasure, and to get honey for home consumption, but now he has started an apiary at his farm, having five hives. He thought the bee an indispensable factor to plant life and fruit trees.

F. H. Farmer, president of the Massachusetts apicultural society, and H. H. Jepson also spoke of the work of the bee and the bee-keepers.

Following these introductory remarks the speaker of the afternoon, Arthur C. Miller, of Providence, was introduced, and spoke at some length on "Disease of Bees." Mr. Miller said in part:

"At the start I wish you to understand that the ailments of bees are not of such a nature as to endanger humanity through eating the honey or handling the bees.

"Eminent authorities suspect that much that is written of the diseases of bees is fanciful, and most of the ailments originate from want of cleanliness or want of food. Bee-keepers are wont to consider their knowledge of the bee as modern whereas knowledge and practices differ but little from those of two centuries ago. Valuable ideas of early bee-keepers have as well been lost sight of.

"Bee ailments as known today may

be divided into two classes, those due to germs and those due to nutriment, but the degree of malignancy of the former is often dependent on the bee's food.

"Foul brood is the only germ disease positively known as such. It attacks bee brood and causes foul decomposition. Black brood is by some supposed to be foul brood, modified by some unknown cause. Pickled brood is another disease of unknown origin. Paralysis attacks the adult bee, and symptoms point to its being caused by bacteria. Aside from foul brood, the diseases mentioned are not common.

Dysentery, which decimates colonies in the Spring, is ascribed to no one knows how many causes. Tumefaction of the antennae is of rare occurrence, and has been noticed mostly in queens. The ends of the antennae become enlarged and turn yellow. This extends to the front of the head and the bee soon dies. Vertigo, whose symptoms are a dizzy manner of flying and irregular motions, followed by lassitude and death, is another disease. It is ascribed to nectar from such plants as laurel, azaleas and rhododendrons.

"At varying times and places, what seem to be different diseases, become epidemic, and whole districts become depopulated of bees. Careful analyses of the conditions preceding and during bee epidemics, point to food as being at the bottom of the trouble. Hereditary impaired constitutions are also a potent factor in inviting disease.

"Until recent times it was the custom to destroy the heaviest colonies for their honey. This destruction of the strongest left the less vigorous to perpetuate the species. Evil results finally became so obvious as to arrest the attention of bee-keepers, and methods were devised to obtain part of the honey without destruction of the bee, also of taking the less populous colonies and saving the heavy ones for stock. Next came an era of excessive and unwise manipulation, resulting in great loss of bees.

"I know of no practice that has been more productive of harm than that of spreading the brood, to increase the strength of colonies. Brood killed in this way furnishes a hot-bed for breeding disease germs. The advent of the Italian bee was hailed as a panacea for all ills in beedom. It did infuse new life into the bee.

"Now again bee disease appears in all directions, and in all degrees of malignancy. Have any of you noticed that the spread of disease is coincident with the so-called cup system of queen rearing? Proper rearing and development of queens is essential to wel bees.

"Faults along these lines we can overcome, but curing illness well seated is not so easy. Treatment of any o the diseases by drugs is difficult and uncertain. Success has been obtained in eradicating foul brood, by the us of izal. Bee paralysis has been controlled to some extent, by the use o flour sulphur. The first thing for us to do with any disease is to remove al unclean matter, give the bees clean dry quarters, sound stores and healthy queen.

"The McEvoy treatment of fou brood is take the bees from everything they had, and keep them from combs or brood until their stomach are presumably free from any germ then give them a chance to establis a new home.

"Dysentery appears to be a germ disease, which is always presen awaiting favorable conditions to develop. In handling bees, we mus avoid extremes of heat and col and do not change the proportions o nurses to brood that the latter are liable to suffer from want of food. Wit bees as with humanity, an ounce o prevention is worth several pounds o cure."

Following the talk by Mr. Miller, h was interrogated upon various phase of bee life, success and failures of be keepers.

Several of those present were enrolled as members of the society at th close of the meeting. It was announ ed that the next meeting of the soci ty would be in the library room of th Horticultural society, March 18. was also given out that plans wer being made for at least two summ field days, when the bee in life cou be studied.

Those present were: Arthur C. Miller, Providence; F. H. Farmer, Boston, president of the Massachusetts apicultural society; H. H. Jeppson, treasurer of the same society, Boston; O. B. Hadwen, president of the Worcester County horticultural society; Burton W. Potter, president of the Worcester agricultural society; C. S. Graham, Holden; J. L. Day, Herlin, M. W. Goodale, Oakdale; F. H. Drake, East Brookfield; H. L. Walton, Worcester; L. E. Griswold, Charlton; H. L. Nichols, Grafton; O. S. Morey, Shrewsbury; H. C. Shepard, Sturbridge; Horace P. Jacobs, Auburn; H. A. Holms, West Boylston; F. P. Goddard, Grafton; Henry Reed, W. C. Barnard, Mr. and Mrs. A. A. Hixon, Mr. and Mrs. C. R. Russell, Mr. and Mrs. J. D. Richardson, Mr. and Mrs. W. A. Green, Mr. and Mrs. F. A. Skinner, C. H. Goodell, S. A. Burgess, Mrs. J. W. Bennett, James O'Connell, S. B. Parsons, Burton W. Gates, Mr. and Mrs. John A. Hough, Miss Ida M. Parrott, Miss Laura Joudrey, Charles S. Bacon, John S. Baldwin and Mr. and Mrs. Theodore Parker of Worcester.—Worcester (Mass.) Daily Telegram, February 25, 1905.

DON'T DO IT AT ALL.

Upperco, Md., Mar. 11, 1905.

Editor American Bee-Keeper:

I desire to ask you a question regarding the putting on of supers and extracting frames.

I want to use one pound boxes in supers, for comb honey and extracting frames all on one hive, that is use both on one hive. Which would you put on first, boxes or extracting frames?

The principal part about it is to arrange it, so as to get full boxes and yet have room in extracting frames so there will be no lost time.

I have been studying that new hive stand that you have pictured in this month's paper. I would think that wire cloth was too flimsy to use on a hive stand that was supposed to last several years. When that bottom board is lowered to enlarge the entrance, if the bees don't fill that place with propolis between the bottom board and shoulder I will be very much deceived. Besides these points I think it is a very good invention. I have a hive stand which is similar to the one mentioned which answers just as many purposes.

D. H. Zencker.

The use of both sections and extracting combs upon a hive at the same time is a practice which has been advocated by those who are, or are supposed to be practical; and perhaps they are, but from our own experience we feel strongly inclined to advise: Don't do it. We do not believe the practice capable of producing the best results. For the production of choice comb honey, concentration of warmth, working force, energy and receptacles are important. The addition of an extra extracting story completely defeats this desirable object and scatters instead of concentrates. Extracting combs may be placed upon the hives as soon as the honey flow begins; then, as soon as work in them has well begun, remove them and place in their stead a super of sections. This practice often prevents an early attack of swarming fever, and throws a heavy force into the sections at a time when the work may be completed quickly, thus giving the most beautiful white cappings. There need be no lost time in the supers, if another is added before the first is completed and the operation repeated so long as the flow will warrant the addition of extra supers.—Editor.

The Review is exploiting a revised form of earlier practice in making forced swarms which is expected to do away with some of the evils of present ways. If at the same time it eliminates that vulgarity, the phrase "shook swarming," it will be a welcome change. There was never any good reason for its creation unless it was a desire to be outre. It was not ever descriptively accurate for the swarms were often forced by other methods than shaking. It should go the way of other uncouthness.

Stand off and get a good perspective of your work. It may not be as big as you thought.

If your heart is in your work the labor becomes play.

THE Bee-Keeping World

Staff Contributors: F. GREINER and ADRIAN GETAZ.

Contributions to this Department are solicited from all quarters of the earth.

BELGIUM.

(Gleaned from Le Rucher Belge)

Mr. Leger gives the following rules to prevent the queen from going in the supers:

1st—A brood nest of sufficient size.

2nd—Put the supers on only when there is some sealed honey at the top of the brood nest combs.

3rd—Avoid putting drone comb in the supers.

4th—Never put any brood or brood frame in the supers to start the work there. If the flow is good the bees will come just as well without it.

CLARIFYING EXTRACTED HONEY.

Mr. Kramer advises to heat the honey as soon as extracted, to a temperature of 104 degrees F. It is much more liquid, and the impurities separate more easily. It is then left two days in a very warm room. The impurities during that time have all come to the top and can be skimmed off.

GETTING READY TO MOVE IN.

Mr. Fritz had lost a colony during the winter. He left the hive with the empty combs in place. One day at about dinner time, he noticed a number of bees at work cleaning out the combs and hive actively. These proceedings lasted until about 2 o'clock and then stopped entirely; in fact the work was finished. About a half-hour later a swarm was coming from somewhere and took possession of the hive.

MAKING HONEY VINEGAR.

Mr. Louis Pirson gives the following method to prepare the very best vinegar from honey: Thirty pounds of honey are mixed with 25 gallons of water in a barrel rather a little large than absolutely necessary and perfectly clean—never having contained vinegar. The object is to have the alcoholic fermentation first and the acetification later. If both are allowed a the same time they partially counteract and spoil each other. Four pound of honey is boiled in a gallon o water. When cold, four pounds o raisins or dried grapes are added t start the fermentation. When it i well started, the mixture is poured i the barrel, and the barrel left in place sufficiently warm to keep th fermentation going briskly, thre weeks should be all that is needed t get the alcoholic fermentatio through.

The acetification is then produce by leaving the barrel open, for plent of air is needed, and adding a sma piece of "mother of vinegar." Th barrel should yet be kept in a war place, so the acetification can tak place rapidly. At a low temperatur the aromatic ethers which give th vinegar an unusually good taste fail t be produced. Furthermore the acet fication is too slow and the vinega might spoil during that time. Whe the vinegar is made the, barrel is stopped and kept in a place as cool a possible. If it is clear nothing mor is needed. If not clear, a quart of should be taken out, a half-ounce c fish glue dissolved in it and the whol returned to the barrel stirrin thoroughly. This will do the clar fying. A vinegar thus made is sai to be vastly superior in strength an aroma and taste, to anything heretofore produced. If no "mother" i available, a piece of bread may b put in some good cider vinegar unt white threads appear on it, and use instead. As a last resort, beech woo shavings can be employed.

IT MUST BE A LITTLE ONE.

Those who use a solar extractor know that it should be placed so he sun strikes directly on it. That neans moving it around occasionally luring the day. To accomplish this asily, Mr. Couterel keeps his extrac-or on a wheel barrow.

SO HE SAYS.

A correspondent says that the ectar of flowers is colorless and that he color of the honey is due to pollen hat gets in it. The honey or nectar lissolves the coloring matter con-ained in the pollen.

WORSE THAN A FLEA.

Mr. Lacoppe Arnold says that while good apiarist could work very well ithout a veil, it is not prudent to do o. He relates a case, where a bee got ccidently in the ear of the apiarist nd caused quite a trouble.

JUST FILLS THE GAP.

Among the ornamental trees pro-ucing a quantity of honey is the ophora japonica. It grows rapidly, rnishes an excellent timber, and an nmense quantity of white flowers roducing almost as much nectar as e linden. The blossoming period is uring August and September in elgium, precisely during a period hen the other sources of nectar are arce.

EVIDENTLY FROM OHIO.

Mr. Leger says that one year, a col-y having an imported Italian queen ve a good crop of honey from red over while no other flower was yield-g and the other colonies gathered thing. The amount is not stated in unds. He says that in two weeks ey built (in the super) ten combs led and sealed them. The frames hen given had only small founda-n starters, their size was 13 by 6 1-2 ches.

A TEST FOR HONEY DEW.

Mr. Reidenbach gives the following n to test whether honey is from the wers or whether it is honey dew. ix some of the honey with lime ter, stir well and let it rest. If it is from the flowers the mixture will remain clear. If it is honey dew it will be cloudy and finally leave a precipitate.

HONEY AS AN OINTMENT.

A two-year-old child scalded his arm completely in overturning a kettle of boiling water. The arm was covered with honey and a cloth wrapped around it. The pain subsided immediately and the arm got well in a few days without trouble. The cloth was removed occasionally without causing pain by first wetting it well. Another cloth with honey was then substituted.

In uniting two colonies Mr. Sharp advises to shake the bees of both colonies in front of a new hive. There will be no fight.

Mr. Bertin lives in a locality where the bees are very much inclined to swarm. He finally found best to allow the first swarms to issue. He puts two or more together, so as to have some surplus from them. The second swarms are either prevented or returned to the parent hive.—L'Apiculteur.

TESTING NEW STRAINS OF RACES.

Quite amusing is the advice given by some writers regarding the introduction and trial of new strains or races of bees. If it is one in which they are interested it is at once the part of wisdom for every bee-keeper to try it, but if perchance the writer is opposed to it on account of commercial or other interests or from prejudice what do we hear? "It is dangerous to put such bees into your apiary. They will contaminate all your stock. You can never eliminate the bad blood, etc."

Oh, consistency thou art indeed a rare jewel.

Practically it is quite safe to experiment with any race you choose. If it becomes crossed with the other stock the mismated queens can be destroyed, and if perchance some of the crosses are not disposed of, the blood is soon "swamped" in the dominant race.

THE

American Bee-Keeper

PUBLISHED MONTHLY.
THE W. T. FALCONER MANFG. CO.
Proprietors.

PUBLISHING OFFICE, - - - Fort Pierce Fla.
HOME OFFICE, - - - - - Falconer, N. Y.

HARRY E. HILL, - - - - - - *Editor*
ARTHUR C. MILLER, - *Associate Editor*

Terms.

Fifty cents a year in advance; 2 copies 85 cents; 3 copies $1.20; all to be sent to one postoffice.

Postage prepaid in the United States and Canada; 10 cents extra to all countries in the postal union, and 20 cents extra to all other countries.

Advertising Rates.

Fifteen cents per line, 9 words; $2.00 per inch. Five per cent. discount for two insertions; seven per cent. for three insertions; twenty per cent. for twelve insertions.

Advertisements must be received on or before the 15th of each month to insure insertion in the month following.

Matters relating in any way to business should invariably be addressed to
THE AMERICAN BEE-KEEPER,
Falconer, N. Y.

Articles for publication or letters exclusively for the editorial department may be addressed to
H. E. HILL,
Fort Pierce, Fla.

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Editorial.

ADVANCE OF THE AMERICAN BEE-KEEPER.

In the history of the American Bee-Keeper this issue marks the advent of a new era. A new name will be noted at the head of this department—not new to our readers, but new in this capacity. Hereafter Arthur C. Miller will be associated with myself in handling the editorial department of The Bee-Keeper, and I feel sure that the occasion is one upon which the publishers, the readers and myself may all be congratulated.

For more than seven years I have striven earnestly to serve the interests of bee-keepers, and the work has been a source of constant pleasure during that period, though the editorial department has, to my mind, been the most unsatisfactory feature of the paper. I feel now, however, that The Bee-Keeper will be able to present editorial representation second to none in America, in point of independence, progressiveness, fairness and force.

It is questionable if the world today holds a more thorough and alert student of practical and scientific apiculture, or one who has the ability to more clearly express his ideas in writing than Arthur C. Miller. I therefore anticipate a degree of popularity for the paper very much in excess of that which it has enjoyed in the past; and while congratulating my readers upon this acqusition and sincerely assuring them of my gratitude for their productive efforts in behalf of The Bee-Keeper, I bespeak for my esteemed associate a reception as genial as I have myself enjoyed, and a degree of support worthy of his talents.

Fraternally Yours,
Harry E. Hill.

GREETING.

In greeting the readers of the Bee-Keeper from the editorial chair, I do so with considerable diffidence, and i was only on the urgent request of Mr Hill that I consented to share with him the duties and pleasures of the work. I shall join with him in the endeavor to produce a journal for bee keepers, second to no other. The paper has been fearless and independent in the past and will be equally so in the future. No effort will be spared to give full, free and fair statements of all sides of all questions pertaining to the bee industry. Every implement, practice and belief presented will be treated on its merits and nothing that can possibly be of interest or value to bee-keepers big or little, will be intentionally omitted. Neither of the editors have any entangling alliances, no implements to sell, no practices to exploit, nothing to hamper or hinder them in their efforts. When our contemporaries present something better than we do we may ask to "borrow" it and we will cheerfully lend them, on proper credit, any of our good material.

Fraternally,
Arthur C. Miller.

Prompt action in business matters s a virtue, but some recent business naneuvers raise the question whether t is not possible to be too virtuous.

Extra hives, proportionate in numer to the size of the apiary, should always be on hand during the season 'or the reception of swarms that may ssue.

The next meeting of the St. Croix Valley Honey Producers' Association, Glenwood, Wis., will be held at the ome of Leo. F. Hanegan, in Glenwood, May 21. Manager Hanegan ordially invites all bee-keepers to be is guests on that day.

The Irish Bee Journal, one of the veliest and best apiarian journals in ll Europe, starts this month upon its fth volume. The popularity and uccess of our Irish contemporary are reat, but not more so than it derves.

Our readers will please notice that ey are no longer dependent on thir--three years of experience, as we ow have among our valued contriburs one who has spent sixty profitae years with the little winged puzes and whose writings are based on s own work and observations.

That sugar syrup serves well as a inter food for bees, and that it is l right as a stimulative food, is conded; but that the practice of using for either purpose results in injury the industry must be admitted. It in this case, not the evil, but the ppearance of evil" that effects the jury.

Fred W. Muth the big honey dealer Cincinnati, wrote April 4: "I have st looked over my bees, and also ose of a friend, and find that they fully a month in advance of their ndition last year at this date. The over is not looking very encourag ig now, but it is too early yet to dge as to the coming season."

t is unreasonable to think that any e without experience or knowledge bees may engage in the pursuit of culture and immediately derive trefrom any considerable degree of eher pleasure or profit. However, by the aid of the innumerable books and periodicals on bees, now accessible, one may soon become well informed.

Bees have wintered fairly well throughout New England, but from some places come reports of no old pollen in the combs, and consequently very little brood. If this condition is general a crop from fruit bloom need not be expected. Too little pollen is worse than too much, for in the latter case it can be removed.

Would you address five or six postal cards to friends who keep bees in payment for six months or a year's subscription to The Bee-Keeper? If so, you will thereby have an opportunity to materially assist our efforts to increase our circulation and improve the paper. Write our Falconer, N. Y., office for details of the plan.

"Westward the course of Empire takes its way," but in taking its "way" it left behind several very comfortable things. Among these are a lot of enthusiastic bee-keepers in New England. The states comprising that section of the country contain many a snug little apiary and many thousands of pounds of honey are produced and sold almost within sound of the hum of the busy laborers.

The impulsive formation of the Honey Producer's League, it is stated, was apparently necessary in order to help move last year's crop of honey from the markets in time to give the new crop a chance. 'Before adjourning," however, "it was resolved to do no general advertising until there is at least $5,000 in the hands of the treasurer." Where's the fellow that said the bee-keepers were a slow lot?

Massachusetts can proudly boast of two thrifty, hustling, bee-keepers' societies, the Worcester County Bee-keepers' Association and the Massachusetts State Bee-keepers' Association. The membership comprises men and women from all walks of life and great interest and enthusiasm is displayed at all their meetings. They enter into a breadth and depth of discussion that is most inspiring. Now that the Old Bay State is bestirring herself the rest of the States will needs look to their laurels if they would keep them.

SCIENCE IN APICULTURE.

Practical bee-keepers sometimes look askance at what they term scientific articles. It may not be amiss to say that science is naught but "knowledge, co-ordinated, arranged and systematized." What really disturbs them are the long, dry statements of details often necessary to make the record of the matter under consideration so complete that other persons may intelligently take up the work therefrom.

Careless and loose statements of ways, means and methods are among the most potent hindrances to progress in all pursuits and none more than in bee-keeping. An example will help to make this clear: A bee-keeper writes, "I took a strong colony, etc." His idea of a strong colony is one thing, the reader's may be another. One man calls eight "L" frames well stocked with brood and bees "strong," the next man does not not consider less than twenty such frames, strong. The latter man accomplishes results with his stock impossible with the eight frame size. The reader tries it with another idea as "strong" and fails. Had accurate details been given (i. e. a scientific article) all would have ben clear.

It is our aim to have the matter appearing in the Bee-Keeper full, complete and accurate and at the same time as far as possible avoid the dry details to which many object.

No system of wintering bees can be made to yield certain and pre-determined results unless temperature, air and moisture are under absolute control. Persons who make, or contemplate making bee-keeping their sole means of support, or even depend on it to a large extent, will do well to arrange to construct a repository for their bees in which these factors can be controlled. It is not necessary that such repository be underground but such, as a rule, are safer and cheaper in the end. It is none too soon now to consider the location and details essential to their proper construction if you contemplate having one for next winter.

THE HONEY PRODUCERS' LEAGUE.

Considerable space this month is devoted to matter pertaining to the new organization recently formed at Chicago. It is given in full in order that our readers may study the details of its various phases and decide for themselves as to its merits.

That some efficient method of education that would tend to popularize honey, was sorely needed is a fact most keenly realized by those who produce honey for the market; but whether the course pursued by the little meeting at Chicago last month meets the requirements of the case, is yet an open question.

The great haste with which the ideas of the several gentlemen were put into effect may be responsible fo constitutional features that, to sa the least, are not calculated to inspir great public confidence in the League This is to be regretted, as, under th present constitution, the membershi is without power to amend any defec which may become evident in th constitution, unless, perchance, th needed amendment should happen t meet with the approval of the Boar of Directors already in power.

The American Bee-Keeper note with regret that so important a ste in America's apicultural affairs shoul necessarily have to be announced t the public to which it looks for sup port, with an apology for its initia move.

THE STANDARD OF EXCELLENCE IN HONEY.

In this number of The Bee-Keepe appears a very interesting article b Mr. Hall, in regard to the excellenc of Canadian honey.

In view of the fact that this magnificent showing is reported from th "land of his nativity," and the fact are chronicled by the hand of hi respected preceptor, upon his nativ heath, there cannot be anythin humiliating therein to the writer. H is hardly liable to be prejudice against Ontario, one of the richest an most beautiful sections of the world.

However, all that has been writte upon this matter of climatic effe upon the quality of honey, raises th question: Who is competent to determine the qualities essential to plac any specific sample of honey in th highest class? What constitutes perfection in any particular sample of honey?

The simple question. "What is honey?" has apparently baffled the wise heads of our day. Whether meagre knowledge, or a deficiency in our language is responsible for the inability to answer, we shall not venture; but the foregoing questions are liable to prove even more difficult of solution than the latter. Everybody ought to know that Ontario produces the finest quality of butter on earth. The writer was raised to this tune, and, of course, accepted it. In fact, it was regarded beyond question that Ontario's dairy products were unequalled anywhere. Portions of New England, Western New York, Southern California, and several hundred other sections of our great American continent likewise persist in instiling into the minds of the rising generation the fact that their own blessed ocality stands alone, the envy of all he earth, in the production of dairy products of the very highest order.

If one happens to sojourn during springtime within the borders of Onario, Vermont or Ohio, he may soon be convinced of the great superiority of the maple sugar produced in the respective localities, and of the vast uperiority of each respective locality over each of the others. Of course, he writer knows that Ontario's is in act the best for he has toted sap for weeks, made and tasted it. Its deliious odor, even now, penetrates the cores of intervening years and spans he distance of more than 1,600 miles. There cannot be anything equal to its beautiful golden color and delicate maple flavor. We are not prejudiced, of course. We simply know that it s conceded that Ontario produces the est. That is, when we are in Ontario. In Ohio, or in Vermont it is somewhat different. But they are envious.

Jamaica oranges lead the world. We know this, not from experience, ut through constantly reading Jamacan papers which are upon our exhange list. Several years ago when he writer was in California he did ot know that Jamaican oranges were he best. The fact is, everything in vidence went to show that the only ranges worthy of the name were alifornia oranges, and all else were ut miserable makeshifts—pretenses at being oranges. Now, the epicures of the world recognize only Florida oranges, and the upper crust of epicurism will accept nothing but those grown upon the banks of the Indian river—the nearer the brink the fruit is grown the quicker will they grab it. Evidence of this condition of affairs is on every hand. Why? Simply because the writer now lives on the banks of the Indian river.

After all, is not the matter of quality in honey a matter of personal taste, or, at least, personal education? We have eaten basswood honey produced in Ontario and also basswood honey produced in Florida. It all tasted the same—none of it very palatable. Canadian white clover honey is a most delicious article; but our own experience does not lead us to regard it as in any way the superior of the white clover honey produced and handled by like methods anywhere else in the United States. We have eaten honey produced on the south coast of Cuba which, to our taste, was the equal of any honey produced in Canada or the northern states, regardless of its source.

In conclusion, let us propound anew the question, "What constitutes perfection in any particular sample of honey?" Let someone who is sufficiently wise formulate the standard and submit it to the world; then we may determine the question of climatic influence upon the quality of honey.

CONSUMPTION OF SWEETS DECLINING.

A recent canvass of some leading grocer elicited the statement that the proportion of the consumption of all sweets but candies has steadily declined, the purchasing public taking more fresh fruits, vegetables, canned supplies and novelties of sundry sorts. The stores at all seasons are stocked with these things as never before, and they are natural competitors of honey. There is a limit to the purchasing and consuming power of the public and the advent and display of the thousand and one palate-teasers are bound to have effect.

Candy was never so extensively made and sold as now and persons who eat freely of it are not likely to eat honey at meal times with the avidity they otherwise would.

All these factors, coupled perhaps with a greatly increased production of honey have much to do with the stagnation of the honey market. Advertising and better distribution will probably afford much relief. The feeding of less sugar syrup and the leaving of the poor grades of honey with the bees will also help and help largely.

Are you keeping bees for pleasure or profit? There is more pleasure if they yield a profit or even pay their own way. But there is a lot of pleasure either way.

Honey and Beeswax Market.

Buffalo, N. Y., April 13.—Though the supply of honey is quite liberal the demand is good considering the lateness of the season. We quote our market today: Fancy comb, 12 to 13c. No. 2, 9 to 11c. No. 3, 7 to 8c. Beeswax, 28 to 32c. Honey surely should be sold now. Common has to be cut and pushed hard to effect sales. Fancy sells very well. Batterson & Co.

Denver, Col., April 13.—Though the demand for honey is a little better than it has been, the supply is greater than the local demand. We quote our market today: No. 1, per case (24 sections) $2.20 to $2.40. No. 2, $1.75 to $2.00. Extracted, 6 1-2 to 7 1-2 c. Beeswax in demand at 25 to 28c.

Colorado Honey Producer's Association.
1440 Market street.

Kansas City, Mo., April 14.—There is a better feeling in the comb honey market, but the season is getting late and there are some signs of granulation. The supply is good, with fair demand. We quote our market today: Comb, per case (24 sections), $1.50 to $2.00. Extracted, 4 1-2 to 6 1-2 c. Beeswax, 28c. C. C. Clemmons & Co.

Chicago, April 18.—A carload of comb honey (said to be from Colorado) came on the market about the first of the month. It was placed with a firm that does not make a specialty of honey and to some extent has upset prices when looked at in print. It is put up in 24 section cases with wood slides instead of glass and is more or less candied. Choice white comb brings 12 1-2 c; No. 1, 11c at 12c; amber 8c at 10c. Extracted white 6 at 7c; amber 5 1-2 at 6 1-2 c, prices being being governed by quality, flavor and package. Beeswax 30c if clean and of good color.
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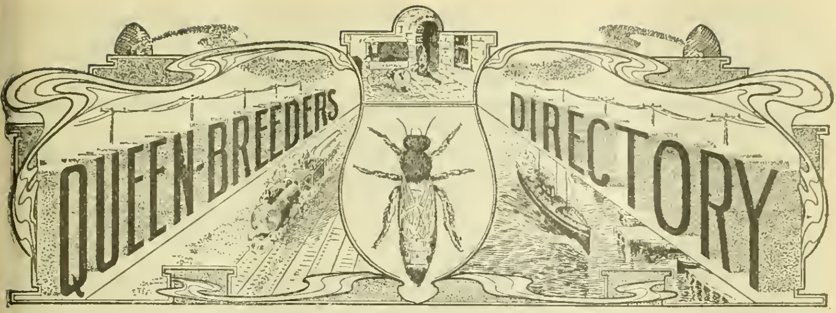

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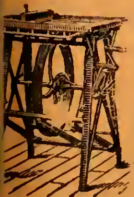

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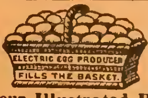

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B. H. STANLEY, BEEVILLE, TEXAS.

1-5tf

AHEAD OF SHOOK-SWARMIN

The March *Review* is now in process of preparation, and will be out about the middle of the month. One article in this issue will be by H. G Sibbald of Canada, and he will describe a new system of management that promises to be away ahead of shook-swarming. It has these advantages: No shaking of the bees; no handling of the brood; no possibility of the queen being in the wrong hive; no danger of after-swarming; no increase unless desired (but easy to secure if wanted); no queen cells to hunt up and destroy; yet the whole force of bees may be kept together the whole season, and each colony may be requeened with a queen from a naturally built cell.

This is only a single article in one issu
the *Review*, but it is a fair sample of what
are losing if you don't read the *Review*, an
what you will gain if you read it. Send $
for the *Review* for 905; or if you prefer,
can send ten cents, and when the March is
is out it will be sent to you, and the
cents may apply on any subscription sen
during the year

W. Z. Hutchinson,

Flint, Mic.

THE AMERICAN BEE-KEEPER

Vol. XV JUNE, 1905. No. 6

The Farm.

IT was just a plain old farm house,
But the dear old place I knew
Seems a palace now, for distance
Lends enchantment to the view,
And tonight, through rosy glasses,
Once again the scene I see,
Of those careless days of boyhood,
Ah! so dear, so dear to me.
I can hear the low, soft murmur
Of the gentle summer breeze,
Just outside my attic window,
'Mid the branches of the trees,
And, in fancy I imagine,
Once again beneath the shade
Of those trees, I am playing,
As in bygone days I played.
I can hear the reapers singing
At the cradle far away
In the wheat-field, and the laughter
Of us children at our play.
By the odor of these lilacs,
In the vase beside me here,
The old place is silhouetted
Right before me, strong and clear;
And this sprig of honeysuckle,
With its old-time, sweet perfume,
Brings a hundred scenes and faces
Close beside me in the room.
Dreams. The noises of the city
Faintly fall upon my ear,
And the sound dispels the vision
Of the old farm-life so dear.
Ah! the old farm. It was humble,
But each blade of grass possessed of
Charms for me that helped to make it
Of all spots on earth the best.

—Grand Rapids Herald.

SIXTY YEARS AMONG THE BEES.

By W. J. DAVIS, 1st.

FOURTH LETTER—Continued from Page 89, May Number.

THE HIVE from which the swarm has issued is placed anywhere in the bee-yard that suits the pleasure of the bee master. By removing the old stock, most of the field workers will be drawn off and join the swarm, and there will be less liability of after swarms. We are working for comb honey and perhaps do not desire increase of stocks. In such cases, in a day or two, take combs from old stock; shake the bees in front of the young swarm; and give combs and brood to such as may need a little help to become box workers; first, however, removing all queen cells that may have been started.

In regard to two or more swarms uniting on the wing, I wish to say that no matter how many swarms unite, there will be no quarrel between queens and bees, if the swarms uniting are all led by laying queens, or all led by virgin queens. But if one swarm having a fertile queen, and another with a virgin queen unite, there will be trouble, for the bees with the laying queen will ball the virgin queen every time and the bees with the virgin queen will ball the fertile queen, and you will have confusion enough. An Ohio bee-keeper last summer wrote to one of our bee periodicals saying, that his bees were swarming and he had a great deal of trouble with the bees balling their queens and they would not stay hived, etc. I do not attempt to quote his exact words but give the substance of them. But I noticed the editor gave no reason for such actions on the part of the bees, and no remedy for the evil. To distinguish between a first and an after swarm, we will call a swarm that issues with a fertile or laying queen in a normal condition, and one with a virgin queen in an abnormal condition. With the first there are no contingencies. When hived, they work and prosper; with the second they may commence work but a later examination may reveal a few discouraged bees and
possibly some drone brood. A layi
queen will walk into her new ho
with dignity and would scorn the i
of going out alone, but a virgin qu
will often come out and fly around
see what she can see and like man
lass takes chances that older o
would not risk; for sometimes she f
to find her sisters, or enters pla
she ought not, or she may be cau
by some varmint.

Again, in changing combs with
hering bees to build up colon
always deal with those colonies in
same condition as to their queens.
the adult bees are all removed f
a comb of brood, it can be placed
any colony without risk of queens.

I believe that many stocks
nuclei that are found queenless
made so by the bees killing their
queen, on her return from her
ding trip. She goes out a rollick
virgin and returns not the same
yet she is the same bee. She has
roaming in realms of ether. She
been abroad and she puts on airs.
wonder her sisters don't know he

THE NUPTIAL FLIGHT.

Mr. Maeterlinck describes the
ding flight of the queen in such p
language that I will be excused
quoting: "She starts her flight b
wards; returns two or three time
the alighting board; and then ha
definitely fixed in her mind the e
situation and aspect of the king
she has never yet seen from with
she departs like an arrow to the ze
of the blue, she soars to a brigh
luminous zone, that other bees at
at no period of their lives. Far a
the males have beheld the appari
have breathed the magnetic perf
that spreads from group to group.
every apiary near is instinct wit
Immediately crowds follow her
the sea of gladness, whose li
boundaries ever recede. She, obe
the magnificent law of the race, c
es her lover and enacts that the str

st alone shall attain to her in the olitude of the ether. She rises still and or the first time in her life the blue iorning air rushes into her stigmata, nging its song in the myriad tubes of ie tracheal sacs, nourished on space iat fill the center of her body. She ses still. A region must be found unaunted by birds that else might proine the mystery. She rises still id already the ill assorted oop below are dwindling and illing asunder. The feeble, unwelome, ill fed, which have flown from ipoverished cities. These renounce e pursuit and disappear in the void. nly a small indefatigable cluster reain suspended in infinite opal. She mmons her wings for one final effort, id now the chosen of incomprehenole forces has reached her; has seized r and bounding aloft with united ipetus the ascending spiral of their tertwined flight whirls for one secd in the hostile madness of love."

My private opinion is that the great ench author has sent his queen far high. Like many a religious thest fixed the abodes of the finally essed beyond the stars, or as one mnologist puts it, "beyond the unds of time and space." The t of queen and drone mating, is claimed, has never been tnessed by man. The truth of s claim I can neither affirm deny. I can say however, that I ve never witnessed it, although I ve had many thousands of queens tilized; but have many times seen eens returning to their hives with mistakable evidence of fertilization. out 25 years ago, while in my garn, 10 or 12 rods from my bee yard, attention was arrested by the noise wings and on looking up discovered ustling mass of bees, not more than ard in diameter and probably one dred feet high, moving rapidly in ss, but slowly, laterally, and dending as they moved. I could see m very well until their descent ught them between me and the fty trees on the hills south of my ary. I took it to be a quantity of nes and a queen. But this I give y as a guess.

(Continued.)

hat man is worthless who knows y to receive a favor, but not to ren one.—Plautus.

THE CLIMATE AND HONEY.

By J. B. Hall.

EDITOR AMERICAN BEE-KEEPER: As you know, I am not a writer for publication, but upon reading in your journal for March, page 58, the editorial, "Climate and Honey," I am so amused at what Mr. J. A. Green says about basswood honey that I cannot forebear stating a few facts that will perhaps enlighten his mind in this matter.

As a honey producer I was not aware that this part of North America produced a superior quality of honey until long ago, when the American Bee-Keepers' Association held its annual meeting at Toronto, Ontario, during the time of the great annual show, and, of course, visited the exhibition. The first man to call on us was our friend, Dr. Miller. I did "not know" him. His question was, "How do you get it so nice?" I asked him if he was from south of the line, and he said that he was. I had to inform him that nearly all good things, from men down, were produced far north; at this, he laughed.

Our next visitor was our good friend, A. I. Root, of Medina. He stated in his journal, Gleanings, that it was the best honey that it had ever been his good fortune to behold, and that he was not prepared to see Old Mother Earth make such an array of honey of such a choice quality.

At the great fair at Chicago, the Hon. Mr. Secor, the judge, gave to Ontario twenty-five, out of a total of twenty-seven awards. This number was later cut down, however, by the committee to twenty-three—for we "North" fellows. Later, at Buffalo, Ontario was awarded the gold medal on basswood honey.

We Canadians do not claim superiority; but allow your own people to pronounce the verdict as to quality.

Woodstock, Ontario, April 4, 1905.

An editorial, page 104, May issue, had reference to the foregoing article, which was by an oversight left out of that number.—Ed.

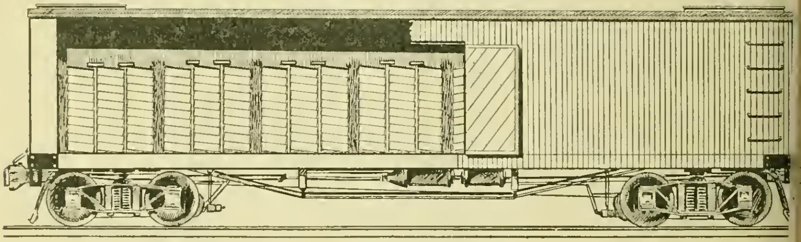
How can he abide long in peace, who thrusteth himself into the cares of others, who seeketh occasions abroad, who little or seldom cometh to himself?—Thomas a Kempis.

PACKING COMB HONEY FOR SHIPMENT IN CAR LOTS.

BY HARRY E. HILL.

SOME TIME ago Mr. Leo F. Hanegan, Manager of the St. Croix Valley Honey Producers' Association, of Glenwood, Wis., sent me a splendid photograph showing a side-tracked car which his Association was loading with comb honey. Some correspondence in regard to their methods resulted, and considerable interesting information was secured, and as neither Mr. Hanegan nor myself had observed anything particularly noteworthy along this line in any of the journals, I obtained his permission to publish the gist of the thing in The Bee-Keeper.

At the left in the photograph Mr. Hanegan is seen, while Mr. H. Jacobs stands at the right. Mr. Jacobs, Manager Hanegan says, is the man to whom he is indebted for most of his knowledge in regard to packing car lots of comb honey.



MANNER OF LOADING COMB HONEY.

In the first place a clean, dry refrigerator car is ordered, though, of course, no ice is used, but a clean, dry car is important.

The accompanying drawing will illustrate the manner of loading. About 1,200 24-section cases make a good load. The car in the picture contained 1,100 such cases, and represented a cash value of about $2,900.00, F. O. B. at loading point.

About three inches of straw upon the floor is used. At ends, 15 inches. Between tiers, about six inches of straw is snugly packed, with only enough at sides to make shipping cases fit snug and tight. The straw should be clean, and oat-straw is preferred.

Where a full carload is to be shipped, the cases are packed ten high; but if a less quantity, tiers are not ma so high, as they should be so loaded to meet at the middle of the car.

It should be noted also that t cases pitch slightly toward the midd and that they "break joints," th adding to the solidity of the aggreg ed weight.

Unless buyer specifies other me od of loading, this plan is always lowed, and upon each end and ea door of car a caution card—"Han With Care," is tacked. That is, ca are loaded from each end, and meeting space solidly packed with straw, which packing comes above the tiers of cases.

Over the joints of tiers, in the dra ing, may be seen the ends of s t cleats or beams, crosswise of the r which serve to hold down the ca s. These, however, are used only ove e joints of the three end rows, th h our artist has tried to make th s doubly safe by using them throug it the length of the car.

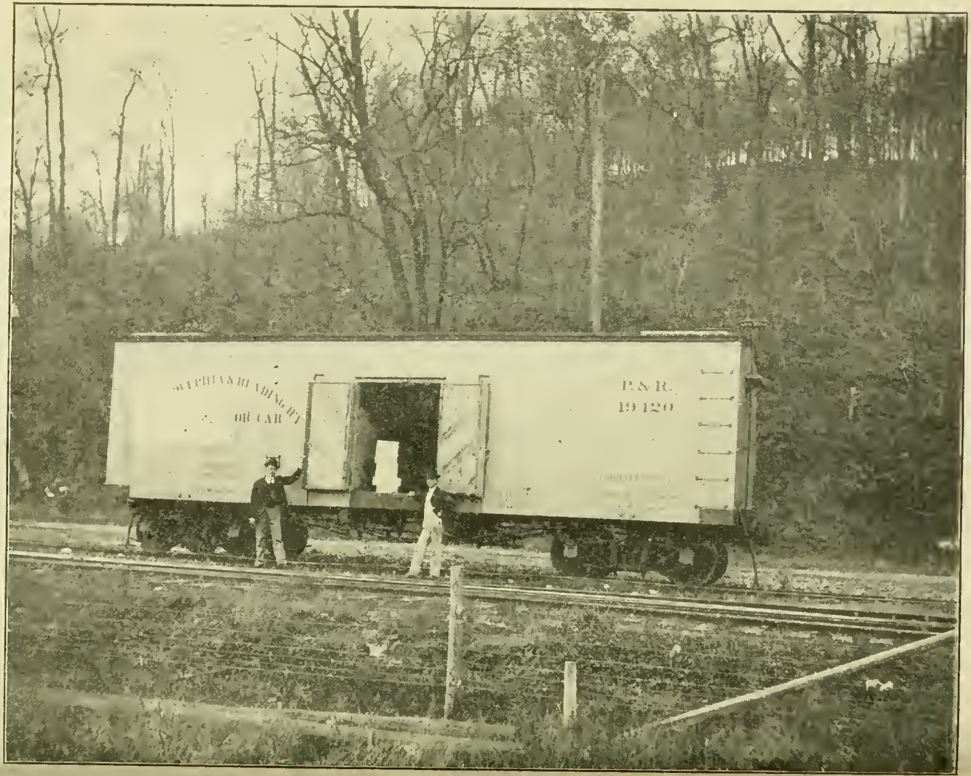
Mr. Hanegan further advises it before loading a car with comb h y one should be sure that it has lo "flat wheels," as, "a flat wheel ll make mush of a load of comb h y in short order."

Mr. Hanegan invites suggesti s, and a discussion of this impor t matter.

Fort Pierce, Fla., May 20, 1905.

The greatest firmness is the gr t est mercy.—Longfellow.

There is no greater delight tha to be conscious of sincerity on sel x amination.—Mencius.



WITH COMB HONEY, IN WISCONSIN.

TO TEST NECTAR, AND POLLEN-YIELDING PLANTS.

Scientific Investigations to Be Conducted by the National Department of Agriculture, in California—Special Agent in Apiculture, John M. Rankin, off to His New Field of Labor.

By Prof. Frank Benton, in Charge of Apiculture, U. S. Dept. of Agriculture.

TO THE EDITOR of the American Bee-Keeper:

In the autumn of 1903 while traveling in California, I learned that agents of the Department of Agriculture were locating an experimental garden for plant introduction in the Sacremento valley. The thought occurred to me at once that it would be a splendid thing to undertake observations as to the honey-producing capacities of all the new plant introductions which are being made there extensively by this Department. Upon my return to Washington, I immediately consulted with Dr. Galloway, Chief of the Bureau of Plant Industry, and also with Dr. L. O. Howard, Chief of the Division of Entomology which has since been developed into a Bureau. Both of these gentlemen were very favorably disposed toward the scheme. The time for the execution of it has now arrived and at my suggestion one of my assistants, Mr. J. M. Rankin, has been commissioned to proceed to Chico, California, to conduct these observations as well as carry on some experiments under the direction and instructions given him from this office by myself. A small apiary will be established at once at the Plant Introduction Garden. Various races of bees now in this country will be represented in this apiary, and very possibly other types, which it is hoped may be obtained in the near future, will be tested under control there. At the outset, the main purpose, however, will be to make observations as to the honey and pollen yielding capabilities of all plants, which may come under the notice of the apiarist, in order to determine, in so far as possible, their availability in filling gaps in the honey and pollen yields in other portions of the country. New introductions made by ourselves will also be tested in this way. Some general field work in connection with bee diseases will be undertaken, and later, should laboratory facilities be established, a mo thorough investigation of bee-paralys and other contagious diseases enter upon.

There is a wide field for valuab work in this connection. The clima and resources of the great West, a particularly the semi-arid regions the country, requiring very differe treatment from the other portions. is therefore deemed advisable to gi this special attention to those portio of the country. And I earnestly quest the hearty co-operation of bee-keepers, who may be situated so to render an assistance in the condu of this work, either through inforn tion, the sending of specimens, or m ing such tests as we may find it visable to require.

Washington, D. C., May 15, 1905.

PROGRESSIVENESS.

Not a Distinguishing Feature of Modern Apiaris

By Arthur C. Miller.

OF ALL BRANCHES of rural e probably none is less advan l than that of beekeeping. T s statement may sound rash and unv ranted, yet I believe I can show i o be true by simply stating a few f the happenings and practices in e culture to-day.

Bees swarm, but why? We hav a score of theories but nothing defi e. Bees raise queens under several i- ditions but what are the real stim ?. If we only knew, then queen rea g at the owner's option would be sin e. Queens lay drone eggs at sundry ti s, why? Bees elect to rear drones at le time and not at another, why?] es winter well or ill, because why? s, there are a hundred speculations it show me a scientifically accurate st e- ment in regard to any part of it. 'ho knows or has ever taken the pain to learn the food value in heat-gi ng power of the stores of the colon s? Who knows definitely the st economical size of colonies for wi r- ing? Who can tell why bees wil e- fuse one queen and accept anot r? What causes the bees to build d ne comb in one place and worker in n- other? What is there about the b od food that changes worker larva to queen? Why does one colony af hile another seemingly under exactly e same conditions hustles? Do ones find the queens by sight, by nell or by hearing? One colony ilds smooth, even combs while the xt wrinkles them and covers them ith burr-combs. Why? The next ason it is turn-about, and why? One lony enters supers readily, the next ill not be either coaxed or driven in, d who can tell why?

These are a few of the things we nt correct answers to, and up to te I know of almost no effort to ob- in careful, accurate data on which to rk. Sift all answers and they ount to naught but general state- nts of things, nothing exact. To be re it is most exceedingly difficult learn the exact truths in these mat- s, and yet it is just such difficulties ich must be surmounted if bee- eping is ever to rise to a science.

See what strides horticulture and riculture have taken in the last few rs. Look at the results of plant eding, of the analyses of soils, of action of sundry fertilizers, bac- ia, etc., etc. Then look at our own ustry and what can we show be- d a few improvements in the tools use? Aside from a very few items arding diseases and two or three s of light on habits we can show hing. And yet we veterans pat each er on the back; crow about how ch we know; tell the beginners ex- ly how to run their bees, and then out into our own yards and find our s refusing to do as we had suppos- they always did. We are a wise ch, we veterans. Our rules are very ch like old professor's rules on the man verb, which he had worked n into one small book, while the eptions to the rule filled a score of e volumes.

e self-appointed instructors of the titude have roosted so high and ved so loud that we have actually vinced ourselves that we are in- ible. Haven't we? Just look at t we have said and the way we it. Only one among us has been est—the modesty of real knowl- —and his "I don't know" will down the ages long after the rest s are forgotten.

t not the foregoing deter the be- er from continuing with bee-keep- for he can have the fun of blun- ng and stumbling most as much as we have, and if he knows that we are only guessing when we say we know, he may set to work to find out the truth and his hand may be the one to raise apiculture to a science.

Providence, R. I., March 1, 1905.

HOW TO SUCCESSFULLY RUN AN OUT-APIARY FOR COMB HONEY.

By A. A. French.

Read before the Jefferson County (N. Y.) Bee-keepers Association, January 17, 1905.

WE TAKE it for granted that we have bees and supplies for an out-apiary. Then the first thing to be considered is its location. I will talk from experience and not theory.

First. Have it as near home as possible and not interfere with the home yard.

Second. Give it the best pasture you can.

Third. Protect it from heavy winds, especially from the north and west.

I do not know as I could do any better than to describe my present out-apiary, which is run exclusively for comb honey. It is located three miles from my home yard, at almost the top of the Champion hills; on the side that slopes north, on an incline of about 200 feet to each half mile. It is protected on the west and north by a thick hedge of plum and choke-cherry trees; on the east and south by an orchard of apple trees. On the south side of the yard is the honey house, facing north, overlooking the bee yard. At the east side is a honey cabinet for the filled surplus supers.

The hives are placed in groups of twelve, with two hives on each stand arranged in a semi-circle; six on each side facing each other. The groups of hives are in rows each way, giving an alley 12 feet wide with the rear of the hives on either side.

The honey house rests on wooden blocks, so that it can be moved when a new location is desired. Just inside of the door, in easy reach, is a four-inch Bingham smoker, two whisk brooms, honey knife, hive opener, a propolis scraper, Alley drone traps, queen cages, bee veils, screwdriver and an extension hiver. Inside is a work-bench with a fair supply of tools. The bees are taken out of the cellar about ten days after we think it is time to take them out. With clean bottom-boards and closed entrances, so that about two bees can pass out at a time, they are corked up as warm and snug as possible.

I do not do as much building up by feeding in the spring as I used to. It is a slippery piece of business with an out-apiary. But little more is done until fruit bloom.

To successfully run an out-apiary for comb honey, you must cut corners at every turn and make as few trips as possible.

or where the brick is placed. I c step out in the yard and in a mom can tell those hives that need atte tion to-day, to-morrow, or the d after, without going over the wh yard. Each colony is examined ab once a week, or as the season requir Then all the bricks are re-adjusted to the colonies' condition.

At the time of removing supers, use the bee escape under supers, th they are removed to the honey cabin Here they are totally freed from be then they are taken to the ho apiary before the sections are remov from the supers.

REINFORCED WITH BROOD.

Supers with sections with full sheets of foundation; Hives filled with frames of worker comb or foundation wired; in fact, everything that can be done, must be done in the winter at home, so as to be ready for the harvest if it comes. I have almost all natural swarming. I make about sixty trips during a year.

An out-yard of 125 colonies, spring count, requires about eighty days' labor of ten hours each. With an average season that includes everything in relation to it.

The condition of the colonies is recorded by a half brick on each hive. The condition is known by the location,

One more thing that must not be gotten and that is the consideratio compensation for the use of the pre es that are used. Whatever the sideration may be, let it be a cash every time. Meet the landlord than half way. After you have him cash in full for all indebtedn give him a liberal supply of honey the free favors you have received

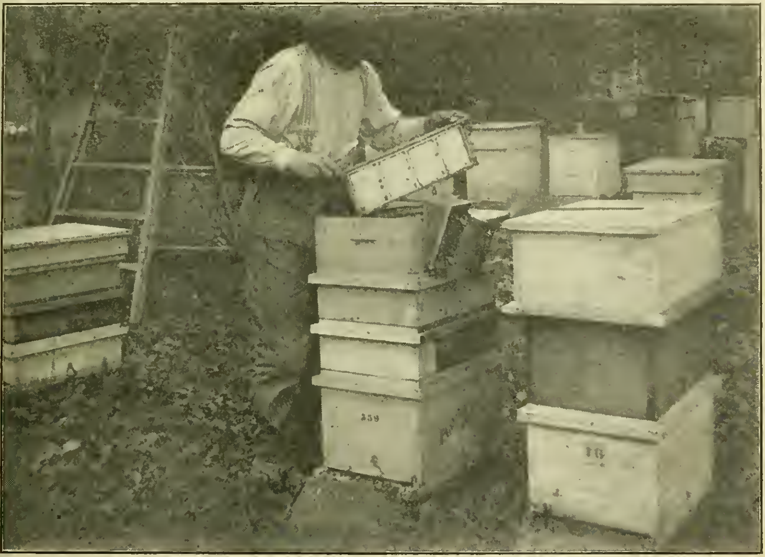
The rule that works well at home yard will succeed at an apiary. Keep as close to nature possible. The form of a cube is for a brood nest. The one that I for comb honey is 12 by 13 and 1 ches deep.

See that all drone comb is removed from the brood chamber and worker comb is put in its place.

Don't stand ten minutes for a little bee to get out of the way for fear he might get hurt. Let some things remain a secret to the inquisitive neighbor.

A cloth lightly saturated with carbolic acid or kerosene will hustle the bees out of the supers. Bait sections n the supers are a little gold mine to ee-keepers.

Have the honey house at the south ide of the yard facing north. You an see the bees much more readily.



NOT GILT-EDGED, BUT TRIMMED WITH BUCKWHEAT.

"A GOOD SCHEME."

Profitable Manipulation of Parent Stocks.

By F. Greiner.

THE ACCOMPANYING photo shows a part of my apiary at the beginning of the buckwheat ney season.

I want the reader to especially take tice of hive No. 76. It contains a lony which had cast a swarm in the rly part of the season and had been eated a la Heddon. Afterwards it reived one set of brood combs from a shaken swarm, and after a few days more, another. When buckwheat time arrived all the brood had hatched from these combs and the young queen was laying. The hive contained by this time a large amount of young, vigorous bees, which, when confined to only one brood-chamber and a section case, were ready to begin work at once. I have had very good results by treating parent colonies in this way.

Hive 559 had been shaken early and had given me 48 sections of nice white honey. The third set of sections were not finished when the clover season closed. It was left on the hive to be finished with buckwheat. This is not generally recommended, but as it lessens the work and the result is just as satisfactory, I am loth to expend unnecessary labor removing partly filled supers. As the season turned out the partly filled super was completed, but not very much more work was done in the fourth set of sections. The buckwheat season was too near a failure with us. In an average season the four supers would have been filled from that source.

Naples, New York., Jan. 30, 1905.

LOSS OF QUEENS IN PARENT COLONY.

By G. M. DOOLITTLE.

FROM the many letters I receive asking why so many colonies which have cast swarms become weak and finally die before the season is over; and from the many calls I have to see what ails the bees during the month of August, I have fallen to wondering if it would not be well for some one to say a few words relative to the loss of queens from the parent colony after it has cast from one to three swarms during the early honey flow.

In this we have something which is very often overlooked by very many bee-keepers, and the colonies are allowed to go without a queen till laying workers appear, or the colony dwindles down to where robber bees take away all the honey the hive contains, and the first the bee-keeper knows he finds his hive empty of both bees and honey.

That we may better understand these things it is well to know that, as a rule, the time from the issuing of the first or prime swarm to the time the first young queen emerges from her cell, is seven days. Then, if after-swarming is allowed, it will be all the way from four to eight days before a young queen becomes established in the hive, over her rivals, and this established queen may be only one or two days old when thus established. As a rule, queens which have their own way fly out to meet the drone when from five to seven days old, so it may be five to six days after such queen is established before she mates. Then there is a period of from two to three days after mating before she begins to lay. Hence, when after-swarming is allowed it will often be twenty-four days before the queen commences to lay, and it is useless to look in such (after- swarming) hives any sooner than this for eggs in the cells. Then if you look when the queen has been laying only a few hours, the eggs will be so few and far between, or scattered about among so many of the combs, that it will bother the novice to find them; hence I always consider it good policy to wait from twenty-six to twenty-eight days, at which time young larva will be likely to appear, which, together with eggs i several combs, tells you, generall upon the lifting of the first cente comb of the hive, that a young quee is there all right.

For dim eyes, the larva will tel the story at first glance, for the firs larva in any colony which has raise a queen will be so liberally fed wit chyle that this milky substanc "catches" the eye at once, while it i often hard to discern eggs, especiall on a cloudy day. If no eggs or larv are found on the twenty-eighth da from the time any colony casts it first or prime swarm, a frame o brood, having eggs and larva in i should be given from some othe colony having a laying queen; and w are to look at this frame again, fort eight hours later, to see if queen-cel have been started on it. If so, the the colony is queenless and should given a laying queen at once, if po sible; or, if this cannot be, then tw or three frames of brood should given them, else they dwindle where they will be of little value b fore any young queen will emer from a queen they may raise fro the brood given.

If no cells are started,you may kno that the bees have something whi they are tolerating as a queen, a she should be hunted up and destroy in order that a good queen can gotten in her place.

But suppose after-swarming is n allowed; then we have seven days the time the first young queen emerg from her cell, seven days to the ti she flies to meet the drone and thr days to the time she begins to la thus making seventeen days t shortest time any young queen likely to be found laying, from t time the prime swarm issues. Th I would wait three or four days mo before looking for brood, so that eg and larva might become abundant the combs, so I could expect to asc tain what I wished to know on lifti only one or two combs. My practi is to look for eggs and larva on t twenty-third day from time of swar ing, where no after-swarm is allowe or on the twenty-eighth day whe such swarming is allowed. But, late years, it is a rare thing that look into any hive, for after we kn just what is going on in a hive, if will look at the entrance and in the sections we can tell from an outside diagnosis very closely in these matters, forever afterward. This knowledge has enabled me to tell at a glance in these matters, by passing in front of the hives along about the dates named, whether colonies have laying queens or not.

When you find a colony that does not have a laying queen the twenty-fifth day after the prime swarm issued, just watch the bees in their actions at the entrance, and compare their actions with one you know has a queen which has been laying two or three days. Then look at the work or "non-work," going on in the sections of the two hives; and if you are a careful observer you will ever afterward be pretty sure regarding this matter without ever opening a hive.

Just why so many queens should be ost from these old colonies having last a swarm or swarms, is something I could never account for, unless the queens are caught by king birds, which are on the alert at this time of he year, more than at other times, on ccount of their feeding their young at his time. Some seasons, and in some localities the loss is from one-fourth to one-half in the apiary.

Borodino, N. Y. April 10,1905.

BUILDING UP WEAK COLONIES.

By J. H. ANDRE.

DURING the first three or four years I kept bees I lost some colonies that were weak in the pring.

It used to be the general practice with the most of bee-keepers to keep weak colonies well protected from cold nd trust to luck to pull them through ntil warm weather, when they were given brood to build them up. This plan will work well with a healthy colony, with good stores and having three quarts or more of bees. It pays best in some seasons to allow such colonies to work their own strength nd get all the white honey possible from strong colonies instead of using them to strengthen weak colonies, and have all of the early honey a few days too late and sealed dark from sumac, as often is the case in this locality. I prefer to weak colonies with a quart or two of bees at the time the strong colonies are well started in brood rearing.

If such colonies that are not strengthened do not perish they generally make breeding places for moths. My method with such colonies is to shake bees from the frames of strong colonies, that have been hatched only a few hours and run them in at the entrance of the weak colonies. Care must be taken not to remove a queen. Cover a broad, shallow dish with a cloth to prevent injury to the bees when shaking them from the frames. Use a little smoke when uniting. Twice over six or eight colonies with a week's difference in time, taking a half pint of bees from each, will make a colony strong enough to care for a frame of brood. The strongest colony should have no bees taken from it except the frame of brood.

Waverly, N. Y., Dec. 24, 1904.

The Call o' the Fields.

Want to get off where the daisies are
growin'—
Winds wavin' blossoms, an' sweet
streams a-flowin';
Where the meadow-bells ring, an' the
cattle are lowin'—
Want to get off for a day!

Want to get off, in a green world of
clover—
Bees huntin' honey, an' doves flyin'
over;
Let loose my soul, with the joy of a
rover—
Want to get off for a day!

Want to get off where the south winds
are creepin'
Over the brook where the speckled
trout's leapin'—
Away with the sowin! Away with the
reepin'—
Want to get off for a day!

—Atlanta Constitution.

"What are the bees doing?"

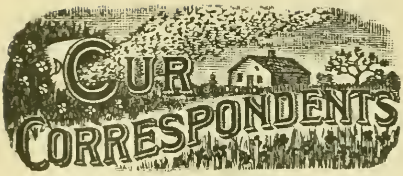
"They are working hard to make honey."

"And what is the man doing?"

"He is loafing around till the honey is made."

"And what will he do then?"

"Bless your innocence—he'll rob the bees!"—Atlanta Constitution.



FRICTION OF THE FACTIONS.

Hook, Hampshire, England, April 18, 1905.

American Bee-Keeper:

In your number for March you print a short article headed "Factions in the Craft," which I hope you will pardon my saying gives a misleading view of the position of affairs over here with regard to foul brood legislation.

The bee-keeping industry both in England and Ireland is a minor one, and outside a very small number of persons there is no practical interest taken in it; therefore it is futile to attempt to obtain legislation except through the aid of the Government Departments concerned with Agricultural Industries. In England we have the Board of Agriculture and Fisheries with whom the British Bee-Keepers Association are working in thorough accord; in Ireland there is the Department of Agriculture and Technical Instruction; but, unfortunately the Irish Bee-Keepers Association, as evidenced by their own journal, are utterly at variance with their Department. Now you say, "Ireland" desires cordial co-operation (for Ireland please read "Irish Bee Journal") but what co-operation is possible between our society whose policy is to work in harmony with the governing bodies in the country, and the Irish society, split up as it is by internal quarrels and whose policy towards their department is one of worry, bluster and whine? Each society has ample scope for its energies in its own country and can, without detriment, work independently towards the same end, i. e., pressing upon the government departments concerned, the need of legislation to check the spread of foul brood.

The "Bill" put forward by the Bee-Keepers' Association contains no word to exclude Ireland, and, if passed in its present form, would give the Irish bee-keepers the same provisions as his Scotch or English brother bee keeper.

The April number of the Irish Bee Journal, contains the report of the Irish Bee-Keepers Association, from which it appears that their total receipts were 19 pounds, 13 shillings, pence and expenditures on printing advertising in Irish Bee-Journal stationery and postage were sixtee pounds, 14 shillings and one pence an the only item of the societies' wor mentioned in the report was a deputation to the Government Department i Dublin.

Hoping you may be able to fin room for this statement, I am,

Yours faithfully,
Thos. I. Weston.

BEES' MYSTERIOUS ACTION.

Etiwanda, Cal., April 7, 190

Editor American Bee-Keeper:

Bee-men in this vicinity had ver poor luck bringing their bees throug this spring. One man reports 2 colonies left out of 200. Another, r ports 16 left out of 38, and numero other reports show from 40 to 75 p cent. loss. The bees would leave t hives, leaving combs full of brood an and honey all in a healthy conditi apparently. Some were caught an returned but only could be made stay by using an entrance guar Cause for this unknown as bees ha plenty of stores and were in goo hives. Can any one give us a reaso why they decamped and how to pr vent its reoccurrence? What are le seem to be doing fine and building fast. We had considerable cold, rai weather during this time. Would th effect the bees so as to make them this?

O. F. M.

We "don't know," and doubt if D Miller himself could do any better answering this question. Perha they had been working on "Lo weed," which grows so abundantly our correspondent's vicinity. That to say, bees that were in good co dition and would forsake good hiv abundantly supplied with stores an healthy brood, "must be crazy." Th act seems about as freakish as som other peculiarities which we have no iced in Cyprian crosses in Souther California. If the strain of stock ca ied some of this blood, such behavior hould cause no surprise. Their do- ngs are sometimes inexplicable.—Edi- or.

FROM AN AUSTRALIAN READER.

Sidney, Australia, March 23, 1905.

Publishers American Bee-Keeper:

Enclosed find money order, with hich please credit my subscription ac- ount one year.

I think a great deal of your paper, nd am always waiting for it when e steamers arrive from America. I n sorry to say that owing to bush es and dry weather (no rain since me last) the honey crop in my lo- lity has been practically a total fail- e, and will be so for a couple of ars to come, as the ground has been id absolutely bare by the tremendous es which we have had this past sum- er.

Wishing you and the American Bee- eper all the best of luck, I remain

Yours faithfully,

R. Nash.

FOR TARIFF REVISION.

Cincinnati, O., April 14, 1905.

itor American Bee-Keeper:

The recent agitation of the increase tariff on Cuban comb honey is quite rited, judging by the favorable re- es this Association has received.

We learn, from a responsible source, t all foreign honey is taxed by this vernment twenty cents per gallon, twelve pounds to the gallon, no tinction made as to comb honey, but all honey coming from Cuba, a re- e is allowed of 20 per cent off the iff amount, leaving the tariff rate Cuban honey sixteen cents per gal- . All honey producers know it re- res more honey to produce comb ey than it does to produce extract- or strained honey, hence comb ey is rated too low.

t the time the tariff rate on honey s fixed, no doubt there was little b honey if any on the market, ce the single rate. We understand it rumored that a revision of the ff is to be undertaken, at the next sion of Congress. If so, then will be time to bring a proper bill regulat- the tariff as to each kind of honey, b and extracted.

Mr. Sereno E. Payne, the chairman of the "Ways and Means Committee, we judge is the man to whom this bill should be presented, however this is only a suggestion. If the Executive Committee of the "National Bee-Keepers Association" knows of a better way to bring it before Congress, it is their liberty to do so, but we must not delay it, as we have but a limited time before the next session of Congress to do this work in.

We presume it is a good idea to discuss this question at the next Convention of the "National Bee-Keepers Association."

Very respectfully,

Henry Reddert, Secy.

Mr. Raudin succeeded in feeding bees with white sugar in blocks. He selected that sawed eighty blocks to the pound as being the most convenient size. As many pieces as possible were pushed down between the combs and the others spread above, if there was space enough. He also reports a method of artificial swarming that has given him good results. As soon as there is five combs of brood in the hives, he takes one and the adhering bees out of each colony and makes new colonies (or swarms) by giving each one five of the combs. Each of these new colonies is put on the stand of one of the most populous of the apiary and beside that fed with blocks of sugar. In his locality, the swarms thus made build early enough to give a satisfactory surplus.—L'Apiculteur.

Before buying new supplies get the catalogues of the various manufacturers, see what you think will suit you best—if necessary write and ask questions—and when you have decided then buy and do not let the matter of a few extra miles of freight charges stand in the way. Well made goods suited to your needs are cheaper than less desirable goods at lower cost. Better send across the continent to get the desired tool than try to put up with something you do not like because you can get it near home.

The mill will never grind with the water that is passed.—McCullum.

THE

Bee-Keeping World

Staff Contributors: F. GREINER and ADRIAN GETAZ.

Contributions to this Department are solicited from all quarters of the earth.

GERMANY.

BEHIND THE TIMES.

Neumann says in Leipz Bztg. that the straw-skep holds its place in certain localities of Germany not because it is so cold here making such a warm hive necessary, but because it is best suited to the existing conditions. He does not pronounce the straw skep an out-of-date hive by any means and asserts that among the bee-keepers who exclusively use it are men of wide experience and of reputation.

SHE'S A DRONE LAYER.

I. Frey has a colony of bees of Syrian blood which is at no time of the year without some drones.

NONE TOO SOON.

It has often been recommended by the old bee masters to induce all colonies in early spring, when temperature is favorable to take a clensing flight; if necessary spray the bees through the entrance with warmed sugar water to induce them to fly. This old time practice is now condemned in Leipz. Bztg. and other bee journals.

RULE THAT WORKS TWO WAYS.

Honey is very commonly sold in the candied state by German bee-keepers, but I. Monhving claims to have observed that his honey in the liquid, transparent state was always preferred.

He also tells of a lady bee-keeper who had had a good city customer, a storekeeper. She visited his store one time and selected a number of different articles for purchase. She then made inquiry as to the storekeeper's supply of honey for the season. The storekeeper cooly informed her that her honey at one mark per pound was a little too high for him and that I had ordered his supply from Franc The lady quickly told him 'very we then, I will order my supplies fro France also," and left him.—Lei Bztg.

QUEENS DIE IN THE MAILS.

Freudenstein says in his paper th last year he could not fill all orde for long-tongued bees because t queens, which were shipped him fr Jamaica by one of our breeders we nearly all dead. He has again order a quantity of queens from Ameri but he also intends to now breed th bees himself and is preparing for it

OBJECTS TO FLOUR.

Wolt condemns the feeding of fl in spring on account of the flour, wh stored in the cells, becoming hard stone. In this condition it cannot used by the bees, besides causing th a great deal of unnecessary hard w to cut it out of the combs. Wue says, in Die Biene: The reason ma bee-keepers neglect to do the ri thing at the proper time is beca their hives are so constructed as make an overhauling of a colony difficult.

INVENTION OF THE EXTRACT

The inventor of the extract Hruschka, at one time took unsealed piece of honeycomb from of his hives and gave it to his boy take to his mother. The comb v lying on a plate, and this in a bask The bees were flying around the ho pretty strongly and to keep th away the boy began to swing or wh the basket and contents around h self. The father fearing for the p cious honey grabbed it away from boy. Upon examination he found t one side of the comb was empty a the honey on the plate. This cau him to study on the principle invol nd the invention of the extractor was he result.—Schleswig. Holst. Bztg.

BULGARIA.

FAVORS AMERICAN HIVES.

C. Betz of Rustschuck, is an interest- g writer, occasionally writing for the erman bee journals. He is testing ifferent hives in Bulgaria and is quite vorably impressed with the Ameri- n style of hive. He is setting forth e advantages and disadvantages of e American and German supers quite nbiased in Die Biene. The accessi- ility of the American hives from the p only, he says, facilitates the work. his is not conceded by the followers Dzierzon. Betz recommends the merican hives for mild climate with od honey flows and says in cold cli- ates and with meagre honey flows ch a hive would mean the ruination apiculture.

ITALY.

NOBILITY AND BEES.

An association of beekeepers for the omotion of apiculture has been or- nized in Italy under the name of derazione Apistica Italiana. Mem- rs are required to pay an admission ten Lira (nearly $200.) Countesse olina Ricciavdelli is vice-president. is lady of rank is actually engaged bee-keeping, having about 100 lonies of bees in Dadant hives. In 02 her honey crop amounted to 300 pounds.—Schl. Holst. Bztg.

HOLLAND.

The bee-keepers of Holland are eep, says Kvieger, in Schl. Holst. tg. Nothing is ever heard of them.

BELGIUM.

UNITING COLONIES.

n uniting two colonies Mr. Sharp vises to shake the bees of both onies in front of a new hive. There ll be no fight.

SUBDUING BEES.

Mr. Interim (whatever his real name y be) gives an article on chloro- ming or putting bees to sleep. ong all the processes advocated, he fers the use of saltpeter. This consists in dissolving saltpeter in water, soaking some cotton rags in it and letting them dry. They are to be used in the smoker. Where box-hives are used, this may be very useful. With frame hives, much less, still cases might arise where it would be well to use the process. For instance, in introducing queens to refractory colonies, or to find a queen that could not be found otherwise. The process consists in smoking the bees until they are put to sleep and fall from the combs either on the bottom of the hive or in box placed under the hive for that purpose.

"TOO THIN."

A correspondent says that contrary to the opinion generally held in Europe, pear blossoms yield a considerable amount of nectar, but that the nectar is so thin that the bees do not care for it except when nothing better is available.

AND EACH WITH A VIRGIN.

Mr. Salkin reported in a convention that he had seen two swarms come out of the same hive within an hour.

A HOMEMADE HIVE PAINT.

A first-class paint (?) for bee hives, and especially hive covers is made by mixing coal tar with lime in equal parts. "It has no odor, does not soften in the hot sun, makes a covering hard, glossy, and water proof. Its gray color prevents the excessive heating that always occurs with a very dark paint when exposed to the sun.

PERFORATED ZINC IS BETTER.

The editor of LeRucher Belge, answering a correspondent, advises placing the frames of the super (working for extracted honey) crosswise of those of the brood nest to prevent to a great extent the queen from laying in the super.

BOHEMIA.

WARM SHOWER NEEDED.

The winter has been a hard one. The fall of snow has been immense. Basineck says in March number of Deutsche Imker that it would have to rain boiling water for two weeks to take the snow off by April. Many bees are reported to suffer severely from dysentery.

THE

American Bee-Keeper

PUBLISHED MONTHLY.
THE W. T. FALCONER MANFG. CO.
Proprietors.

PUBLISHING OFFICE, - - - Fort Pierce Fla.
HOME OFFICE, - - - - - - Falconer, N. Y.

HARRY E. HILL, - - - - - - - *Editor*
ARTHUR C. MILLER, - *Associate Editor*

Terms.

Fifty cents a year in advance; 2 copies 85 cents; 3 copies $1.20; all to be sent to one postoffice.

Postage prepaid in the United States and Canada; 10 cents extra to all countries in the postal union, and 20 cents extra to all other countries.

Advertising Rates.

Fifteen cents per line, 9 words; $2.00 per inch. Five per cent. discount for two insertions; seven per cent. for three insertions; twenty per cent. for twelve insertions.

Advertisements must be received on or before the 15th of each month to insure insertion in the month following.

Matters relating in any way to business should invariably be addressed to

THE AMERICAN BEE-KEEPER.
Falconer, N. Y.

Articles for publication or letters exclusively for the editorial department may be addressed to

H. E. HILL,
Fort Pierce, Fla.

Subscribers receiving their paper in blue wrapper will know that their subscription expires with this number. We hope that you will not delay favoring us with a renewal.

A red wrapper on your paper indicates that you owe for your subscription. Please give this matter your early attention.

Editorial.

A resolution, urging on Congress the necessity of pure food legislation, was passed by the R. I. Legislature at its recent session.

The next convention of the National Bee-Keepers' Association will be held at San Antonio, Texas, probably during the latter part of October and first of November.

Editor Abbott, of the Modern Farmer and Busy Bee, says: "Missouri honey is as fine as can be produced anywhere on this continent." Our friends who have a more northerly latitude "on this continent" will "have to show" Mr. Abbott.

Says the Western Bee Journa "California will go on record this ye as having harvested one of th heaviest crops of honey yet produced

The Rural Bee-Keeper has advanc its subscription price from 50 cents $1.00 a year. The Rural has copi every new feature introduced by th American Bee-Keeper during rece years, and ought to be worth a doll It is a bright little journal.

The Review says, "Experience seen to prove that it is a difficult matter profitably publish a good bee jour even if it is only a monthly, for le than $1.00 a year." The Revie might have added that The Americ Bee-Keeper is a living example of t exception to the rule.

A neatly printed label, bearing t name and address of the user, is article for which all bee-keepers ha need. Tumblers and sections of hon for the retail trade, are made m attractive by the use of a neat la There appears to have been some d ficulty in the past about preparing paste that would readily and p manently adhere to glass surfac We therefore take pleasure in in ing the attention of our readers to advertisement of the Fenton La Company, in this issue of The B Keeper, as we have used many tho ands of their gummed labels and f them excellent in every way.

We would caution all inexperien bee-keepers who are planning to perimentwith artificial swarming, be sure that the bees before fo ing, are given an opportunity to their honey sacs with honey or e supply the new colony with a co of honey. In default of this give th a feeder of honey and water, us half and half; if the honey is v thick more water may be used. warm water in mixing and let mixture become quite cold before g ing it to the bees. If honey is available, use sugar and water, tak one part of sugar to three of wat Never use sugar if it can be avoi for while it is a perfectly good food far as the bees are concerned, it gi good ground for charges of feed sugar to make honey.

A New York City correspondent expresses the wish that writers for publication would refrain from the use of slang. The suggestion is a good one, and our contributors are respectfully requested to conform to the wish. He further begs us to "use capital letters, instead of small ones, for the four seasons of the year." He gives no reason for desiring this change, and none is apparent to the editor.

The Hamilton County Bee-keepers' Association, Cincinnati, O., announced that it had arranged to have Mr. W. Z. Hutchinson deliver a lecture at the convention rooms of the Grand hotel, that city, Monday evening, May 29, the subject being, "The Comforts and Conveniences of the Apiary, in Their Relation to Modern Bee-keeping and Honey Production." Mr. W. W. Sommerford, of Cuba, was also to address he meeting. Doubtless the program vas carried out as projected, and the good time anticipated, fully realized. Mr. Sommerford's honey harvest last eason was one hundred and forty housand pounds.

DUPES.

It is a strange commentary on the implicity of bee-keepers, their blindly ollowing biased advice, wasting noney on one fad after another, vhile the vendors of the constantly hanging hives and tools wax rapidly ich.

GRADING HONEY.

"Let your honey be honestly graded. Put the finest next to the glass and hen just the same quality clear hrough to the back of the case," says V. J. Davis. Paste that where you vill always see it and then live up to t. It is a money maker.

APICULTURE IN JAPAN.

The Japanese equal us in many arts, re superior to us in others, but are ar behind us in apiculture. The arliest record of apiculture there datd back to 642 A. D. The practice of the rt is still primitive, modern methods eing conspicuous by their rarity. he Italian and Cyprian races have een introduced and the latter is condered the best, the original or "nave" stock of Corean bees being the ast valued. The annual production of honey is estimated at about 250,000 pounds. Once let these earnest little brown men turn their thoughts seriously to bee-keeping and they will lead us a merry race.

SELECTING QUEENS.

Swarthmore has said: "Virgin queens with broad thorax, cob-like form and stout legs broadly spread, invariably turn out to be long lived and prolific. Such queens are seldom lost at mating time." This recalls the fact it was noted as long ago as 1860 that queens with defective legs often turned out to be drone layers. When selecting queens remember Swarthmore's words.

WHICH HONEY IS THE BEST?

This question will probably be discussed as long as individual tastes differ, but mild flavored honeys will always be most popular and blended honeys will lead among them. In New England when the honey-flow is slow and the combs are filled from many kinds of flowers, then is the honey most delicious. The same is known to be true in some other parts of the country and doubtless is so everywhere Such honey keeps the palate seeking for the elusive flavors and never cloys it. It is blended flavors which have made French cookery so famous.

WHO WAS FIRST?

The Review recently had an article from a Mr. Sibbald on what he believed to be a new method of anticipating swarming and at the same time securing the crop of honey. In Gleanings for May 1 many pages are devoted to showing that the system is not new, each writer claiming to have originated it or used it, some so long ago as 1901. If Mr. Sibbald chances to run into that chilling reception it may deter him from ever again appearing in print.

The kernel of the Sibbald method is in having the forced swarm raise a queen, leaving the old queen with the parent colony; a practice which was well known at least seventy-five years ago. Cheer up, Mr. S., for he laughs best who laughs last.

To Beginners: Don't expect to start out as a full fledged bee—you must be a grub first.

OFF FOR DORSATA.

By the time this number of The Bee-Keeper is in the hands of the reader Prof. Benton will be off for a trip around the world in quest of new races of bees which it is proposed to test and introduce into the United States.

The American Bee-Keeper has stood alone among the bee journals of America in advocating this step. and our readers will doubtless be kept in touch with Prof. Benton's operations during his trip, which will encircle the globe. The first article will appear in our July issue.

DURING PROF. BENTON'S ABSENCE.

In a private letter, dated May 24, Prof. Benton wrote:

During my absence the immediate supervision of the experimental work and conduct of the correspondence of the office here will be in charge of Dr. E. F. Phillips, late of the University of Pennsylvania, who has recently been appointed, at my request, as one of my expert assistants. Mr. Leslie Martin, of Tennessee, and Miss Jessie E. Marks, of New York, remain in the office to assist in the work here; while Mr. J. M. Rankin has gone to California to conduct, under the direction of this office, the sub-station we are about to establish at Chico, in the Sacramento valley. Part of the stenographic work is also ably handled by Mr. E. C. Wood, who wrote this letter.

GOV. FOLK'S VETO OF THE MISSOURI FOUL BROOD BILL.

Despite the unpleasant feelings and harsh remarks against Gov. Folk and his veto of Missouri's Foul Brood Bill, it contains one passage of particular value, one which the bee-keepers will do well to bear in mind when seeking legislation to control bee diseases. The clause is this: "The inspector is authorized to go to anyone's home and if he should not like the way bee hives are conducted he could, for some real or imaginary disease, annihilate the whole brood, leaving the owner without remedy, but for all of which the inspector would receive four dollars a day!" This feature was quite enough to justify the governor's action.

How many of the men who are itching for the post of inspector can earn anywhere near four dollars a day? How many of the Foul Brood laws now in effect provide for any attempt to ascertain the fitness and ability o the to-be inspector for the work? The officious gentleman with his arbitrary powers may know far less about bees and their diseases than bee-keepers whose bees he may choose to condemn but they can make no effective protes against aught that he may choose to do.

Here is an example of the loss ignorance or arbitrary action may cause "In another there are three hives lef and if they catch the disease the must go." Must they forsooth? Thi ignorant inspector decrees that annihilation is the only course he wil allow. But to continue the quotation "Just think of fifty-four hives, all ful of bees and honey, stacked up thre feet wide, six high and six long an you have the lot that were destroye last night, a lot the owners said cos them $250." Comment seems unnecessary.

MISSING ESSENTIALS.

Mr. Massie's comments in the Ma Bee-Keeper, on divisible-brood-chamber-hives are worthy further attentio Such hives if improperly constructe permit drafts between chambers an are then about as bad as any hive ca be. Mr. Massie's hive is believed to b so constructed as to avoid that an hence has proved satisfactory. Of times some slight and obscure fact spoils the proper working of tools systems, whereupon the principle condemned.

If Mr. McNeal will use such hive as Mr. Massie does, or will protect h hives with cloth telescope-covers lik Mr. Bingham's, he will probably fin reason to modify his opinions.

SOPHORA JAPONICA.

Sophora Japonica, the autum blooming tree mentioned in L'Ap culteur belongs to the great orde Leguminosae, the one which contai so many good honey plants such as th clovers, locusts, etc. Its common nam is Japanese Pagoda Tree. It grow rapidly, attaining a height of 50 to feet and is very ornamental, the woo is hard and valuable, and the flowe and pods enter into commerce. Lik the rest of the Sophorae it is a nativ of warm climates. There are three varieties native to the Southern States, the best known of which is the so-called "Coral Bean" of Texas. S. Japonica is hardy as far north as Philadelphia and might live farther north, in some favored localities.

STEADILY WE GROW.

The American Bee-Keeper has never had a boom, but for years its list of subscribers has steadily increased week by week and day by day, until today we have a delightfully healthy list that is still on the increase at the same old pace. A low subscription price and cheap advertising rates, with genuine merit behind the proposition, have achieved this result. Though this edition of The Bee-Keeper exceeds four thousand copies, we earnestly desire to quicken the pace of incoming subscribers during the remaining months of the year, in order that we may be able to introduce many of the contemplated improvements in the paper. If you know of any bee-keepers who do not take The Bee-Keeper, kindly assist our efforts by writing to the Falconer, N. Y., office for cards and samples to be sent them.

ODORS.

Odor in its relation to bee life and management has been long overvalued. There is much evidence pointing to the possession by each colony of an odor of its own, differing from that of any other colony. That such odor has much to do with the reception or rejection of aliens has not yet been proven. It is rue that it has been dogmatically asserted to be the case, but valid proof s still wanting. The writer recently saw a striking example of the freedom with which bees of different colonies intermingle regardless of odor.

Next to the westerly end of a row of 6 colonies of black and dark hybrid bees stood a colony of "golden" talians, the queen of which had been ntroduced last August. There is a hick and high evergreen hedge north f the row protecting it from all but outherly winds and the preailing winds are from the southwest. The western-most hive (blacks) had about 20 or 30 f the golden bees in it. The golden olony which stood next, had perhaps s many black bees in it. The colony next east of the goldens had a very large number of goldens, while each succeeding hive had a lesser number until the last, which was over 100 feet east of the golden stock, had but about a dozen.

If odor possesses the importance ascribed to it, there should have been few or no golden bees in the other colonies and also there should have been many dead golden bees in front of each, but there were none.

Perhaps the bees of this apiary had lost their smellers.

TRUTH WILL PREVAIL.

"But of all plagues, good Heaven, thy wrath can send, Save, save, oh save me from the candid friend" which same the League may aptly quote to the following which appeared as a double-column heading to an inspired article in the Boston Globe of May 4 last:

"500,000 BEES ON A CITY ROOF."

Mr. F. H. Farmer has an extensive apiary on the top of his four-story building on Friend St. He feeds them on sugar served in the form of a syrup."

Let the Leaguers still their wrath and rail not, for they have none but themselves to blame if it is not just as they would have it. Their foremost men have long proclaimed sugar feeding as the sine qua non of successful apiculture and now their candid friend, the reporter of the public press, has told the world thereof. They asked publicity and forsooth they are getting it in good measure, well heaped up, pressed down and running over. Let the good work go on until the accursed practice is stamped deep into the nether regions.

ORANGE BLOSSOM HONEY.

Pro. Cook, in Gleanings, says they have it in Southern California, that it is white and of exquisite flavor. He says, however, that orange blossom honey "will never have any commercial importance, any more than will that from fruit in the East," and explains that it is not that the nectar is not plentiful in the flower but that the colonies are too weak thus early in the spring to store much surplus.

The professor's theory may be thoroughly satisfactory to himself, and to others who may not have observed closely in this connection; but in view of the fact that bees store considerable surplus in South Florida from still earlier sources, yet, in our experience, gain hardly anything at all in weight from the orange blossom, we incline to the belief that the nectar is not there.

By the way, did not some of our esteemed correspondents promise to convert the editor this season to a belief in orange blossom honey, by sending him a sample of the goods? We are quite willing to "take the evidence" in this matter.

"BEE-KEEPING."

This is the title of Farmers' Bulletin No. 59, by Prof. Frank Benton, just issued by the Department of Agriculture and now available for distribution to those who apply. The edition comprises ten thousand copies and the work has been thoroughly revised, and enlarged from 32 to 48 pages. The following list of headings will serve to indicate the additions that have been made in the revised edition:

Page 10-11: Overstocking.

Page 12: Value of bees in pollination.

Page 14: Relative gentleness of races.

Page 16-19: The various races of bees.

Page 21-22: Adding bees to natural swarms.

Page 23: Shaken or brushed swarms.

Page 27: Russian, or hairy vetch.

Page 28: Sulla, or sulla clover.

Page 32: Comb foundation, not artificial comb.

Page 34: Comb honey not manufactured.

Page 42-43: Utilizing brood and honey from diseased colonies.

Page 43-44: Bee paralysis.

Page 46-47: Legislation affecting apiarian interests.

Page 47: Apiarian journals.

While most of our readers will, no doubt, avail themselves of the opportunity to procure a copy of Bulletin 59, and read it for themselves, we cannot refrain from quoting a paragraph therefrom, in regard to the matter of "Overstocking," as Prof. Benton so clearly states the exact point which our old friend, Pat, so earnestly endeavored to proclaim through The Bee-Keeper a few years ago. This is it:

The danger of overstocking a given locality is very frequently exaggerated. Each range, it is self-evident, has a limit. The writer is, however, fully convinced, after long experience in numerous localities and under the most varied circumstances, that three or four times as many colonies as are commonly considered sufficient to stock a given range may usually be kept with a relative degree of profit. But to secure such results sufficient care and close observation have too frequently not been given in the selection of bees adapted to the locality and conditions. A more frequent failure has been lack of proper attention to the individual colonies, particularly as to the age and character of the queens in each. The space given for brood is often too small and frequently no care is given to secure the proper amount of brood in time to insure a population ready for each harvest. Attention to these points would enable great numbers of bee-keepers who now regard 50 to 100 colonies as fully stocking their range to reach several hundreds in a single apiary with slight or no diminution in the average yield per colony.

A NEW "BEE-BOOK."

We have received a copy of Commercial Queen Rearing, which is the third in a series of papers on apiculture, by "Swarthmore." It is beautifully illustrated—several of the photo reproductions being in artistic colo effects, and its forty odd pages are filled with matter that is at once very interesting and profitable reading for every one engaged in the pursuit o bee-keeping. How Mr. Pratt secures 80 to 128 of the finest queen cells from a colony, is concisely but briefly stated. What "Swarthmore" does no know about this queen rearing business, "isn't worth while," and his remarkable success in the business is a logical result of his peculiar adaptability and characteristic enterprise.

Whether the Honey Producers League proposes to place its publicity direct or through some agency, we have not seen stated. Do the brokers come in for a "rake off" on this proposition?

AN UNJUST TRAIT OF "HUMAN NATURE."

The N. Y. Tribune has recently raised the ire of some of our contemporaries by failing to correct articles on adulteration ,to suit the complainant's views. One editor says: "It is not likely that so able a periodical as the N. Y. Tribune is desirous to mislead or misstate and the probability is that when the statement was made it was believed to be correct. Having been made it is only human nature to give full weight—and a little undue weight—to anything found to favor such statement." This expression of "human nature" has for many years been a very pronounced practice of one of the complainants and it has always been impossible to make him see its injustice. Now that it is used against him he may perhaps obtain a glimpse of the point of view of his victims.

Fault is also found because the Tribune says: "Another patented method, according to the inventor, will produce a comb in every respect reembling natural comb built by the bees." According to the past publicaions of one of the complainants, they have made such comb and control that patent.

We believe the Tribune has done well to arouse public suspicion of bottled honeys containing a bit of comb. A little more doubt cast upon a custom ommonly used to deceive, should do ood rather than harm, for the public, lready suspicious of all their foods, elieving their beef to be "embalmed" nd fearing arsenites on their fruits nd vegetables, can hardly be made more suspicious. So long as bee-keeprs continue to feed hundreds of tons f sugar to their bees just so long will here be good grounds for charges gainst the purity of honey. The onverted and stored syrups may be hemically invert sugars and as wholeome as honey yet it is not the nectar f flowers gathered by bees from Naure's own laboratories. It is claimed hat syrup very seldom finds its way nto the surplus honey combs. The ope is only too often the father of the hought and the proof stops there. Within a year some of the apicultural ress has seriously considered the use f glycerine for keeping honey liquid, hich is naught else than adulteration.

The Rural Bee-Keeper says that "Wisconsin produces the best clover and basswood honey in the world." Wonder if that's really so?

Though our venerable friend, Dr. O. M. Blanton, of Mississippi, has been quite indisposed during the past winter, we are pleased to learn that he is again actively engaged with the bees. We hope to present an interesting letter from that quarter in our next issue.

The word, "queenright," as opposed to "queenless," in reference to a colony of bees seems to be establishing itself in the apiarian vocabulary. If we mistake not, the credit for having introduced this adjective belongs to our staff correspondent, Mr. F. Greiner. Others are now "introducing" it.

I don't care to meet the man who has never made a mistake, for that infallible individual has likely never made anything else.—H. Macaulay.

Honey and Beeswax Market.

Cincinnati, May 8.—The demand for honey has increased quite a bit since our last quotation, which is due, probably, to the concessions made in prices to affect sales, as well as the awakening of the spring trade.

We quote amber extracted honey in barrels at 4½ to 6½c, according to quality. White Clover and fancy extracted honey at 6 and 7½c. Comb honey has seen its season. Bees wax wanted at 29c cash.

The Fred W. Muth Co.
51 Walnut Street.

Chicago, May 8.—With April about all the trade in comb honey ceases so far as this market is concerned, occasionally a case sells, but no lots, so that prices now are practically without change, pending the new crop. Extracted is exceedingly slow of sale; white ranges from 5½ to 7c, and amber 5½ to 6c, according to flavor, quality and package. Beeswax in active demand at 30c.

R. A. Burnett & Co.
199 South Water Street.

Boston, May 9.—There is no change to note, in condition of honey market, from that of our letter of April 24th.

Blake, Scott & Lee Co.

Buffalo, N. Y., May 13.—Though the supply of honey is quite liberal the demand is good considering the lateness of the season. We quote our market today: Fancy comb, 12 to 13c. No. 2, 9 to 11c. No. 3, 7 to 8c. Beeswax, 28 to 32c. Honey surely should be sold now. Common has to be cut and pushed hard to effect sales. Fancy sells very well.

Batterson & Co.

Denver, Colorado, May 13.—Though the demand for honey is a little better than it has been, the supply is greater than the local demand. We quote our market today: No. 1, per case (24 sections) $2.20 to $2.40. No. 2, $1.75 to 2.00. Extracted, 6½ to 7½ cents. Beeswax in demand at 25 to 28 cents.

Colorado Honey Producers' Ass'n,
1440 Market St.

Kansas City, Mo., May 14.—There is a better feeling in the comb honey market, but the season is getting late and there are some signs of granulation. The supply is good, with fair demand. We quote our market today: Comb, per case (24 sections,)$1.50 to $2.00. Extracted, 4 1-2 to 6 1-2c. Beeswax, 28c.

C. C. Clemmons & Co.

Laws can discover sin, but not remove it.—Milton.

In great attempts it is glorious even to fail.—Longinus.

No man is free who is not master of himself.—Epictetus.

Who bravely dares must sometimes risk a fall.—Smollett.

People do not lack strength, they lack will.—Shakespeare.

If the outlook is gloomy, keep smiling. Half the troubles of life are dissipated by cheerful courage.

Why Not?

Many of the most beautiful and most profitable pineapple farms on the Indian River have been developed by myself for nonresidents, on an easy monthly payment plan.

Why not have one yourself? It's an excellent investment.

Write me, if interested.

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Barred Plymouth Rock,
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The price of the eggs alone is $1.00 per setting [13]. But we want subscribers for the "Rural Bee Keeper" which is 50 cents a year, and we will sell you both for $1.00. Orders filled in rotation We have 25 laying hens of each breed except the Black Langshangs of which we have seven.

Please indicate a second choice in case we have more orders of one kind than we can fill. We can sell but one setting of eggs at this rate, and only as a premium for the "Rural Bee Keeper." If you want more settings you can have them at $1.00 per setting straight.

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If so send for a copy of The Farm and Real Estate Journal. It has lands advertised in it from nearly every state in the Union; also city property of all kinds and stocks of goods for sale or exchange. So that anyone looking for a home or a location can find anything he wishes in this Journal. It reaches 33,000 readers every issue and is one of the best advertising mediums to reach the farmer and homeseeker. Advertising rates 2c per word for small ads, or $1 per inch single column each insertion. Send 75c and we will mail you the Journal for one year, or for 10c in silver or stamps we will send it for two months' on trial And Journal will be stopped at the end of two months if you don't renew. No copies sent free.

H-Feb. tf

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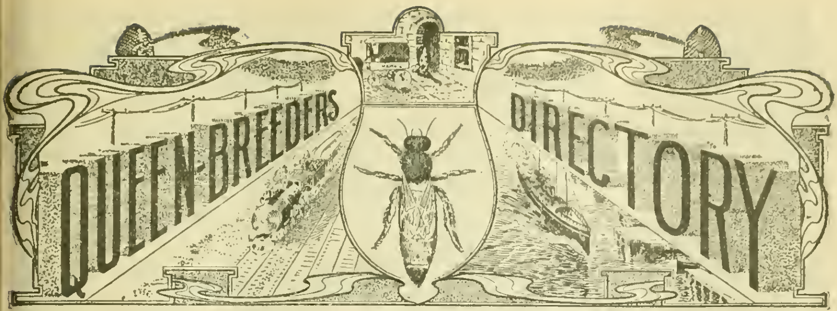

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UEENS HERE. We are still asking you to give us your trade. We sell Italians, Goldens d Carniolans at 75c for untested and $1.00 for sted. Prices on quantities and nuclei upon apication. John W. Pharr, Berclair, Texas. Jan6

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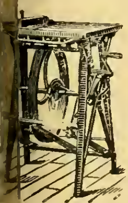

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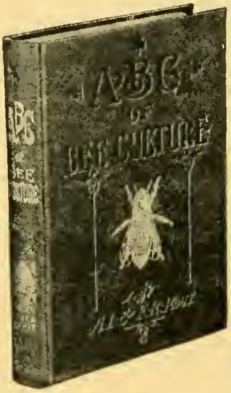

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MURRAY-HEISS. CLEVELAND, O.

JULY

1905

VOL. XV NO. 7

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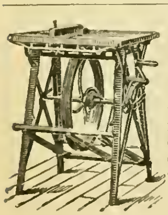

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AHEAD OF SHOOK-SWARMING

The March *Review* is now in process of preparation. and will be out about the middle of the month. One article in this issue will be by H. G Sibbald of Canada, and he will describe a new system of management that promises to be away ahead of shook-swarming. It has these advantages: No shaking of the bees; no handling of the brood; no possibility of the queen being in the wrong hive; no danger of after-swarming; no increase unless desired (but easy to secure if wanted); no queen cells to hunt up and destroy; yet the whole force of bees may be kept together the whole season, and each colony may be requeened with a queen from a naturally built cell.

This is only a single article in one issue c the *Review*. but it is a fair sample of what yo are losing if you don't read the *Review*, and c what you will gain if you read it. Send $1.(for the *Review* for 1905; or if you prefer, yo can send ten cents, and when the March issu is out it will be sent to you, and the te cents may apply on any subscription sent i during the year

W. Z. Hutchinson,

Flint, Mich

THE AMERICAN BEE-KEEPER

Vol. XV JULY, 1905. No. 7

Honeysuckles.

YE TWINE with myriad blooms
  The pillared portico;
Ye scent with rare perfumes
  The airs that round me blow.

Sweet darlings of July,
  The droning honey bee,
The moth and butterfly,
  All come a-wooing ye.

And, a capricious lover
  The brilliant humming bird,
Doth sip and hum and hover,
  And flit as soon as heard.

Here in these honied hours
  I lounge and dream. at ease,
Of elflands fabled bowers
  And the Hesperides.

—Selected.

A SEARCH FOR FOREIGN RACES OF BEES

And Valuable Honey-Producing Plants—The Giant Bees of the East, Megapis Dorsata and Megapis Zonata.

Editor American Bee-Keeper:

THE plans which I have proposed at various times to the Department of Agriculture looking to the securing of the large bees of the East, have finally been put in such shape as to be acceptable to the Department, and I am about to undertake the investigation of these bees as to the possibility of their domestication and utilization in some part of this country, or at least to settle if possible the question as to whether they are of any value whatever.

Incidentally in connection with this work there are other things which may likewise be undertaken, such as the procuring of select queens of various European races, Italians, Carniolans, Dalmatians, and Banater bees from Hungary. Then a good supply of the gentle Caucasians will be forwarded direct from the Caucasus to the Department for use in breeding these bees in the Department apiary and also to be tested at various state experiment stations. Eastward from the Caspian sea in the province of Trans-caspia and along the caravan route through Afghanistan and on through all of northern India there are numerous races, and even distinct species, of honey bees that are certain to prove of great interest and very possibly of much value.

There are also possibilities in the way of honey-producing plants which may also have great economic value in other directions.

From Calcutta I shall proceed by water, stopping only at Singapore, to Manila, and shall spend some time in different portions of the Philippine Islands learning all I can of the bees indigenous to that great archipelago. The large bees will of course be brought under actual test and observation before any are shipped away. If deemed advisable both colonies and queens will eventually be forwarded by way of the Pacific to California.

It will afford me pleasure to furnish from time to time some account of the progress which I am making in connection with this undertaking. The journey will be begun June 3, on which date I sail by the American line S. S. "Merion" for Liverpool, going immediately after landing there to London, and thence after a short delay only to Paris, and southeastward through Germany, Switzerland, Italy, and on to Constantinople by way of Vienna. A number of apiarian establishments, as well as the publication offices of some of the bee journals of Europe, will be visited on this journey. After these pleasant diver sions on the way, the dash eastwar through the wild regions of the Cau casus, Trans-caspia, and Afghanista will take two months or more, an nearly an equal length of time wil be given to the investigation in In dia, and a still longer time to th work in the Philippines.

With kind greetings, I remain,

Yours very truly,

FRANK BENTON,

In Charge of Apicultur

U. S. Department of Agricultur

Washington, D. C., May 24, 1905.

INVERSION.

The Old Plan to Prevent Swarming Again in Use

By E. H. Dewey.

MY WORK on a few colonies las season necessitated a ten-mil drive once a week over unfavo able hilly roads so my actual workin hours in the apiary were few.

The gentleman whose bees I wa looking after, purchased a number o swarms in huge boxes early in th season and when driven out crowde a "Danz" body. He purchased a num ber of queens from many of the mos prominent breeders—not high price queens, but the common tested kind— to determine the relative value o "long tongues," "red clover" strain "golden" and "banded" and any othe freak catch trade-name. One quee

American Bee Keeper

"THE QUEEN"

partment of Agriculture, Washington, D. C. The Figures are Professor Frank Benton, in Charge of Apiculture, in particular showed wonderful results, and signs of swarming appeared after two supers had been removed.

I wished to make a record from this queen and it could not be done if left to the coachman or the gardener who generally caught those swarms that did not escape.

When the swarming condition was noted there were several sealed queen cells and many in all stages. A thunder shower was coming up and a ten-mile drive with several swarms to examine made me think fast, and I determined to try a scheme that had haunted me for some time. The ten frames and the follower, thanks to the accuracy of the manufacturer, materially assisted me; fitting the interior of the hive "like the paper on the wall," I pried the entire body free from the bottom board and turned it completely over—"der attic where der cellar vas," as Schmidt, the poultryman, suggested as he removed a stinger from his nose.

Three other swarms were treated in like manner, the supers being replaced. On my next visit I found all the cells that had been built on my previous visit had been destroyed by the bees with the exception of one and in this sealed cell was a dead queen. However, another batch of cells had been prepared. The supers were again replaced, after the bodies had been turned over again and the following week these cells were destroyed. After the third trial the honey flow stopped for a time and I had no more trouble from these swarms which went into winter quarters loaded with bees and honey and came out this spring almost as strong.

Some will say you may be able to reverse a Danz body but how about hives with Hoffman frames? My experience with Hoffman frames inclines me to believe that they would stick together if the hive was thrown from the top of the barn.

However, a channel one-half inch square and three inches long could be cut in the sides of the hive and a one-fourth inch iron rod passed over the frames. The ends, which had been bent at right angles to the bar, could be passed under a staple in this channel and any kind of hive be made to be inverted.

Gt. Barrington, Mass., Mch. 6, 1905.

ODOR THEORY OUT OF ORDER.

BY ARTHUR C. MILLER.

IS ODOR an important factor in queen introduction? I believe not.

Two systems of queen introduction are in use, one based on the theory that a queen when confined in a colony for a sufficient time acquires the supposed odor of the colony and hence when liberated is received as a part of it, and the other in which the queen is turned into the colony without previous contact with it. Both systems fail at times. The theory that a colony possesses an individual and distinctive odor is an old one, the origin of which is obscure and proof of its truth decidedly wanting. Long ago apiarists practiced sprinkling bees of different colonies with scented syrup before uniting them, and the success following such treatment was attributed to the imparted scent. But i should be noted that the instructions always called for sweetened water Is it the scent or the sweet tha operates?

Another rule says smoke the bee vigorously and a peaceful union i assured, success being attributed t the smoke hiding or overpowering th natural odors. Any one who is familiar with the pertinacity and strengt of animal odors will appreciate th absurdity of such claims.

Another rule says shake the bees o both colonies to be united into a hea before a hive and let them crawl i together, the peaceful union being attributed to the excitement causing th bees to ignore or fail to notice alie odors. One would think from suc statements that bees reasoned abou the matter. If an odor causes one be to attack another, it should be as ope ative when the bees are shaken togeth er as at any other time.

Bees from adjacent hives often intermingle, which would not occur i odor played any important part i the recognition of one by anothe Bees of one colony not infrequentl set up a quiet, systematic stealing fro one another, and the thieves pass fre ly and unchallenged in either hiv Perhaps odor was missing or the bee were suffering from bad colds in th head. (?)

At one time a queen caged in a alien colony for several days is a cepted on being released, while at another time under precisely the same conditions so far as the operator can see, the queen is killed. If scent is the deciding factor this latter occurrence should be rare but it is not. It is remarked that it is more difficult to give a queen to old bees than to young ones. Have not the latter the ability to smell? Virgin queens over three days old are said to be very difficult to introduce to any bees regardless of the length of time they are caged with them. Can not such queens acquire odors? Colonies having laying workers prove difficult to give queens to by the caging method. Have not such colonies any odor to impart?

During a honey flow it is easy to unite bees or introduce queens, but at other times these operations are difficult of accomplishment. If odor is a vital factor it should be as operative under the first as under the second condition.

Ordinarily a colony having a queen will refuse or kill a new-comer no matter how long the latter has been confined in the hive, but under proper conditions as many queens as the operator chooses may be introduced into a colony without their having previously been in the hive, and the bees will not molest any of them.

If the subject is carefully studied it soon becomes apparent that there are too many exceptions to the odor theory to permit of its being acceptable as a rule. From observation and from comparison of my work with other investigators in the line, I believe the kind of reception given a queen depends primarily upon the queen, and only secondarily upon the bees.

There is some, at present unknown, cause governing the relations of bees one to another and our failure to discern it hinders our advance in apicultural work. The acceptance of an erroneous theory as truth is worse than having no theory at all, but the truth will be found if we all go to searching for it.

Providence, R. I., June 14, 1905.

SIXTY YEARS AMONG THE BEES.

By W. J. DAVIS, 1st.

FIFTH LETTER—Continued from Page 109, June Number.

WE WILL come back to our stock, which permitted their young queen to quit her home for a bridal trip. She should commence laying eggs in three or four days. We should then look to see that all is right, and if the young queen has begun to lay. Mark F. for fertilized, having previously marked H. for hatched. This record is easily kept on a piece of section, laying on the honey board. On removing the cap of the hive (that shelters the section cases) this record is readily seen. Q. 1905. H. June 20 F. and the word "clipt," is added when she is clipped and we have a record of that particular hive, so long as that queen is the head of that colony. This seems to me to be all the apiary register needed. And should the queen be superseded at any time, the fact is known by the queen's wings. And if stocks are supplied with queen or queen cells from some other hive that we think is very fine. Mark, for instance, q. c. (queen cell) 20 w. (white) June 15, 1905.

The bee master ought to know the age of every queen in his home apiary. He ought also to know the relative productiveness of each stock, and breed from only the best.

I am sure a strain of bees can be improved as well as any particular strain of dairy cows. Not with the same certainty but in less time.

There are worthless specimens in every race of bees, as there is also in every breed of milch cows or breed of poultry—a breeding back from some remote ancestor. It is an altogether mistaken idea, to suppose, that the queen bee that will lay the most eggs is the best queen. It is also a mistake to suppose that the largest queens are best. I take it there is a normal size for a queen bee that has not varied in 3,000 years. There are also abnormal specimens either too large or too small. An aged "M. D." once ran a series of articles in one of America's bee papers on "How to Rear Good Queen Bees," which, when simmered down, was found to be simply this: Bigger the hive the queen is reared in, bigger the queen. Bigger the queen, bigger the colony around her. Bigger the colony, bigger the honey crop. Probably if sufficient years had been allotted him if his theory was correct, he would have had queen bees the size of our P. R. hens. But Baron Lieawful came in with the aid of great science and the X-rays and the doctor's theory hasn't grown much since, and I think the Baron did not use the "umbilical cord."

My observation justifies the bold statement that a strain of bees can be produced, that can not in this latitude secure even their winter stores in an average season, but will multiply colonies beyond reasonable limit. In truth, excessive increase is a feature of insect life. With the honey bee all the food for brood and adult must be brought in from without. Some one has estimated that 100 pounds of pollen and honey are consumed by a colony of bees in a year. This would probably be a hard matter to demonstrate exactly, but I would guess the estimate was none too high. Insects that find their food in readiness at birth, without a parent's care, are mercifully kept in check by some other kind of insect or bird, and honey bees given to excessive breeding are kept in check by dying off in winter, or lack of stores, in any latitude. In a state of nature such monstrosities can not exist. But man steps in and feeds and the unproductive are allowed to multiply. "Don't expect a large increase and a large crop of honey the same season," is an axiom among bee-keepers.

It has sometimes happened in my experience that queens thought in spring to be good ones lost their heads before the autumn frosts. We talk about tested and untested queens. No queen is fully tested until she is at least one year old; but the test, as applied by queen breeders, simply means tested as to her workers progeny, whether or not she is purely mated. But there are other qualities. For instance, the longevity of the worker bees; strength of wing, that allows the carrying of heavy loads; length of proboscis, enabling the bee to reach nectar in blossoms out of the reach of some other bees of the same apiary.

I have never stretched the measuring line upon the proboscis of a dead Ligurian, but I have lifted hives from their stands, and when I find one that pulls down like lead and other comparatively light, I must look into the cause of the difference. If the colonies are of equal strength, workers about the same age, queens ditto. I must conclude that there is excellence in one case, and deficiency in the other. "Don't be too hasty in judgment, however, but watch such colonies for the whole season, and if such delinquent does not redeem itself, there is one law, and the sentence of that law is capital punishment. No dairyman would think of keeping a cow that yielded no profit. No poultry man would keep a strain of fowls that laid eggs but sparingly. We want milk from cows, eggs from poultry and honey from bees. When either fails in the object for which it is kept it is man's province to step in and regulate things for he has been given "dominion over the beasts of the field, the fowls of the air and fishes of th sea, and over every living thing tha moveth upon the earth."

In view of the progress made in th last fifty years, as to the managemen of bees to obtain best results, som one is disposed to think there is but little left to learn. But we have not ye even got the language of the bee. shall not attempt to tell how one be communicates to her sisters that sh has found a hive of honey a hal mile or a mile away, without one brav defender at its portals, and leads them unerringly to the spot; or one be has found some rich nectar-yieldin flora in a certain direction, the whol colony will soon know the fact an profit by the discovery. Or, in swarming time, how do they decide whic shall go and which shall stay, whic are the leaders, when a swarm by seeming understanding has decided t locate in some hollow tree, and afte a little circling around to see if a are ready, will start straight for th spot selected by a few? No circlin around then. Every bee is headed i the same direction, and swift of foo must he be that can follow them I have tried that little race myself i ny younger days. I could lift my feet lively then, but they always left ne behind, trying to "get the line." We know it is not the queen that leads, or I have had swarms issue from ives that I had removed the queen rom several hours before. How omes it, that the veterans of the field an so quickly forget their old home n the act of swarming? I know some f the old writers attribute to the bee he faculty of reason, and Dr. Bevan uotes some poet as saying:

'Think not vain mortal that reserved
for thee
ang all the ripening fruits on reason's tree.
'en these, the tiniest tenants of thy
care
laim of that reason their apportioned
share."

And to fortify his position, cites act of one of the apiarists of long go, when a huge snail without his hell had gained admission to a hive nd the bees not liking his bulky, limy body, slew him on the spot.

Then all in vain concurrent numbers
strive
o heave the slime girt giant from the
hive."

The task being beyond their united trength they resort to the process of mbalming their victim with propolis, nd they haste to pour

Thick hardening as it falls the flaky
shower
mbalmed in shroud of glue the mummy lies,
o worms invade, no foul miasmas
rise."

Another reports that a huge snail vith his house of horn upon his back ad noiselessly worked his way into house of warmth and sweet odors uring the stillness and darkness of ight and fastened itself on a pane of lass used for observation and when iscovered a council of war was soon onvened and the warriors threw their pears but they could not pierce the alls of the enemy. They finally deided that if they could not slay the nemy they could blockade the ports nd they stuck propolis around the dge of the shell and they had a prisner for life, with no expense for oard, and the poet says a snail so eated will live for years.

"Nor aught avails, but in his torpid
veins
Year after year life's torturing spark
remains
Forever closed the impenetrable door
He sinks on death's cold arm to rise
no more."

I see that Arthur C. Miller does not take any stock in Dr. Bevan's story of the snail and propolis and I am free to confess that I have never abserved just such occurrences either. But that is no evidence but what somebody has seen it. How would Bro. Miller like to have some one a hundred years hence say what A. C. M. said was no good? I think if a small pebble was placed on the bottom board of a hive and looked like a snail, the bees would cover it with propolis. I think also that the snails of Rhode Island and Pennsylvania know better than to crawl into a bee hive full of bees; but I don't think bees show much reason when they resent the kind act of the owner in trying to feed them in the early spring time, or for a swarm to leave a clean nice hive and flee to some old rotten tree in the woods.

NOTES FROM MISSISSIPPI.

BY DR. O. M. BLANTON.

FRIEND HILL: I closed last season with 250 colonies and in May, 1905, found myself with 236, which I consider doing very well.

I find that most of my losses were with my strongest colonies, which were almost full of honey. The only cause I can assign is that the bees clustered on the combs of honey. The temperature at one time was down to four degrees below zero, and the spring has been the coldest and wettest known here in years, so that the bees have been able to gather scarcely enough honey to feed the young bees.

Tomorrow I shall commence extracting, as the season has set in in earnest, from white. and sweet clover, corn, elder (not alder) and swamp woodbine.

For a bee-keeper working from 250 to 500 colonies of bees it is utterly impossible to use the traps and tricks recommended by the scientific apiarists, such as drone-traps, queen-excluders, escapes and tight-fitting or shallow frames, etc. During a heavy honey flow he needs large free-spacing, loose-hanging frames. Absolute simplicity in hive construction is important, as it tends to facilitate rapid and easy manipulation. In the honey harvest we must work rapidly to keep up with the "busy bee," for if we let her fill the hive full of honey she has the advantage, and we lose her services. We must keep ahead of the bee by giving empty combs, in producing extracted honey.

With a large apiary, a bee-keeper needs an assistant who is capable of rearing good queens and forming nuclei, which I am unable to do to any extent.

The Bee-Keeper is strictly correct, page 123, June number, in regard to "Duped Bee-keepers." My advice has been asked by novices, but it would be entirely disregarded as soon as some smooth-tongued hive peddler approached them. More than a thousand dollars have I thrown away, during my early experience, with such characters.

HANDLING ROBBERS.

As a means to prevent robbing, I use cheesecloth. It is very cheap and durable. I use two sizes—one to envelop the hive when necessary, and also one piece large enough to lap over the front of the hive, with strings at each corner to draw the cloth tight, and, when necessary, tack it close to sides of hive also. After ten or fifteen minutes I open the cloth at the top to allow the robbers within to escape, and then close it again, repeating the operation about every ten minutes until all have escaped. The home bees are allowed to enter at sundown, though it is better to leave the cloth on the hive for 24 hours, if robbing has been persistent. If however, the cloth was put on when robbing first began, it may be removed within an hour, as the colony will then have recovered from their disorganization.

CLEANING CAPPINGS.

I remove the cappings from the decapper and place them in shallow vessels in shady places about the apiary. The bees soon consume all the honey and leave the cappings ready for the solar extractor. I have never been troubled by robbers as a result of this process.

QUEENLESS COLONIES.

I never waste time with a queenless colony, but break it up, by giving the combs to strong colonies, smoking the adjoining colony and removing to the stand of the queenless one, and shaking the queenless bees on the ground in front, thus converting them into honey gatherers. If well smoked, it is often not necessary to move the adjoining colony.

SECTIONAL HIVES.

I can see no advantage in the use of the shallow-framed hives, especially, for extracted honey. More frames have to be handled and the brood is to some extent divided by two tiers of shallow frames, causing damage to brood in removing. Those I have used are too small for our climate, and induce frequent swarming. There are many good large frames, but my preference is for the Langstroth. For rapid manipulation, I prefer the 20-frame, one-story style, and to remove the honey from one end only at a time, when extracting, as practiced by Friend Poppleton, as this plan does not discourage the bees, but enables them to more rapidly fill the empty combs.

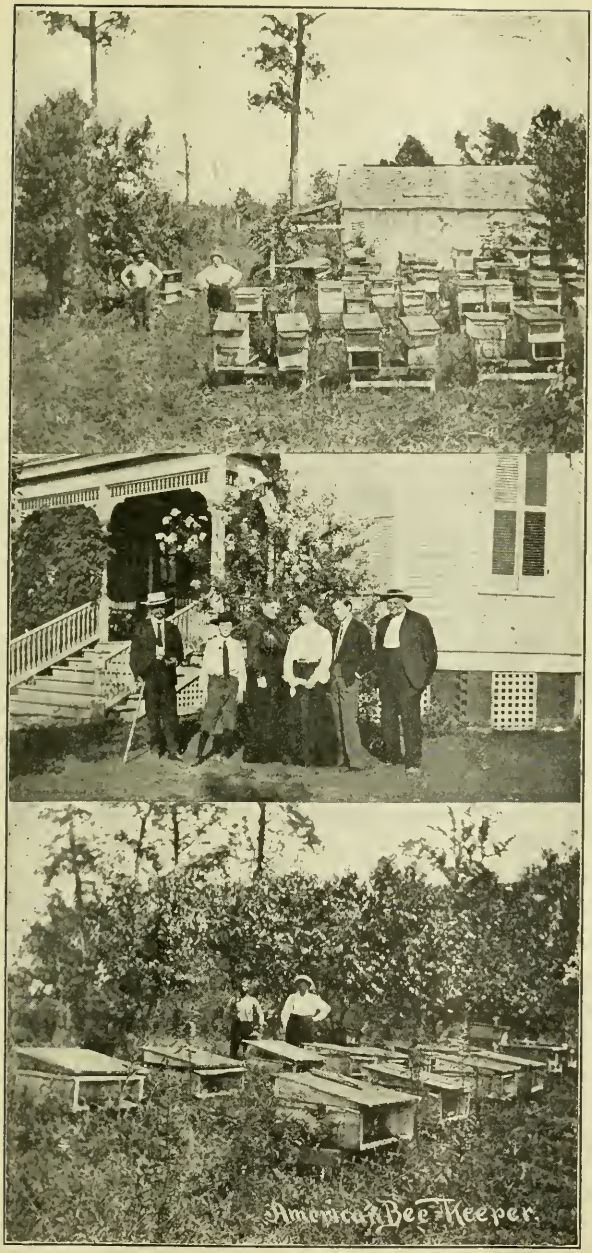
Greenville, Miss., June 12, 1905.

A VISIT TO DR. BLANTON.

BY FRED W. MUTH.

I TAKE pleasure in enclosing herewith a few photographs that were taken by me last summer while visiting our mutual friend Dr. O. M. Blanton, at his home and bee ranch at Greenville, Miss. The doctor is a whole-souled fellow and is one of the greatest bee men in the south. It is simply astonishing that a man, who is fast approaching the fourscore mark, is so very ambitious, and especially in apiculture. Last season, with the aid of his helper, "Ike," he worked some 350 colonies of bees for extracted honey.

His home apiary is one mile from the city of Greenville, and just a few days ago, we received a letter from him stating that he is starting another bee yard some five miles distant from home. His apiary consists principally of the regular two-story Langstroth hives, as well as the single story


American Bee-Keeper.

VIEWS OF DR. BLANTON AT HOME AND IN THE APIARY.
By F. W. Muth.

twenty frame hives. His ideas of single story hive bee-keeping run in about the same channel as those of our friend Mr. O. O. Poppleton.

The doctor's judgment is fine, and he claims that since he is spared the time and labor of lifting the supers from the hives, he is thereby enabled to work the bees to a better advantage. He has passed that time in the life of a bee-keeper, when experimental work is in the foreground, and now looks forth to the profit that he may realize.

In the drowsy noontime, when the sun's rays fall perpendicularly, the doctor may be seen comfortably reclining upon his low couch, on the gallery of his quaint little 'shanty,' cozily equipped with all the comforts of a home, and the ideal spot of a bee-keeper, with its complete library of bee books, bee journals, and bee literature in general.

The refrigerator, with its fresh, sweet Jersey milk is close at hand, and never forgotten, for the doctor never fails to replenish his ice box, so that he may enjoy a cooling and delightfully refreshing drink.

When his day's work is finished, he slowly repairs to his beautiful homestead, where he is welcomed by his family, including his hospitable daughter and pretty grand children.

Cincinnati, O., May 16, 1905.

THE FOLLY OF "TINKERING" WITH BEES.

BY W. W. M'NEAL.

BEE CULTURE has always been wonderfully fascinating to me. From my earliest boyhood I loved the honey bee. My father never kept bees, but my maternal grandfather was obedient to the call of the bees. There have been times when my enthusiasm received a crimp or two, when bad luck seemed relentless and the bees stung harder than ever before. Discouragement weighed heavily and it was then that the cold of winter came as a joyful relief from bee-work. I would feel whipped out and my one desire was to get away from everything that suggested honey bees. But a few months separation was usually sufficient to rekindle the old ardor and my experience has always been that when the snows melt away and the buds come again, my love for the bees blossoms with them.

My greatest mistake with bees were the result of "tinkering." There is a vast amount of difference between practice and mere tinkering. It is all right and necessary for one to open the hives and work with the bees to gain a practical knowledge of their instincts; but, upon the other hand one may be ever tinkering yet never learning the habits of bees. Avoid the folly of tinkering if you would succeed.

Now you may want to know how I manage to gain certain desired ends with the least possible amount o "tinkering." Well, to start with, le us assume that bee-keepers are in the business for what money they can get out of it. Whatever lessens the cost of production adds to the profits thereof, and the system of management that gives the apiarist the greatest freedom from his bees is the one that turns the most money, as profit into his pockets. If the system o management is one that makes it necessary to give the bees almost constant attention, that system is faulty and should be discarded. For instance suppose a man has a hundred colonie of bees and wishes to produce comb honey. Now with this man the bee are only a side line, his main vocation demanding the greater part o his time. We will say that his bee are in eight-frame hives and upon a early examination he finds nearly al of them to be light in stores and varying greatly as to numerical strength How can he get those colonies al strong, and as nearly as possible o a uniform strength at a given tim and do it the cheapest? Not by "stimulating" his colonies with a half pin of sweetened water every day regula for three weeks or longer and then exchanging combs of brood from th stronger for empty combs from th weaker colonies! It is hard to think of a more fussy, impracticable method See what it necessitates: The opening of every hive every day during th whole of that time; the clawing ove of the brood combs for suitable one for exchanging; the consequent los of much of the brood given to th weaker colonies by their inability t care for it, and the attendant dange of starvation near the close of th feeding season, should some unlooked or event cut off the daily supply of ations. But that is not all. Many f the queens are liable to be disabled y being pinched between the combs. Bee-keepers, as a rule, do not give roper consideration to that fact. The ore prolific and largest of the queens re the ones most apt to be hurt and hese are the most valuable. Should he queen escape the awkwardness of he operator and only be badly frightned, that may result in her being disualified for practical work. It is well-known fact that in the spring f the year bees often ball their old other queen, upon a slight disturbnce of the combs, and sting her to eath.

Now, let me here submit a plan hereby one can get around nearly ll of that fussing with bees and get ome honey too: Beginning with the rood chamber, it should be of a caacity not less than a 10-frame Langtroth hive. This will cut out nearly ll of that stimulative business, for e bees will store away enough honey such a brood chamber to carry them afely through to the time of the arly harvest.

Whenever it is found necessary to eed a colony to prevent starvation, ive it a sufficiency at once and be one with it. Breeding will go on ore safely and smoothly than it will y the piece-meal system of feeding.

Provide a super of six-inch combs r every hive. As soon as the bees eed more room place these on the ive. Cover well with a piece of enmel cloth, something that sells for bout 35 cents a yard. Let this exnd out over the edges of super about n inch or a little more. Now put on flat super cover, and, lastly, a deep lescope cover that will come well own over the sides of super. That ill make it snug and warm and the ees will soon take possession. No atter then if the combs in the brood hambers are flushed with honey. The ees will carry some of it above and us make room for the queen.

This is a kind of stimulation that orks like a charm. The queen soon llows the honey upstairs and you us get a rousing big colony in the ost practical manner.

When the combs in the super are irly well stocked with brood, drive e queen below and slip a queen-exluding honey board between the two apartments. Leave it thus for a week or ten days till the brood gets a good start towards maturity. At this stage of the game there will be no loss of brood by exposure. With the greatest ease and satisfaction these little combs of brood may be taken from the stronger colonies and given to the weaker ones. Or, during the middle of the day when the bees are working well, the work may be done with the greatest dispatch by exchanging supers. The smoker should be used a little on the bees in the super after it is lifted off, but those in the brood chamber should not be disturbed in either case. The honey-board should remain intact.

When it is time to put on sections, remove the supers of shallow combs and also the honey-boards and put the section cases in their places. Sort over the shallow combs as they are taken from the hive and those containing brood should be put into a super by themselves with adhering bees, putting two supers together, thus forming new colonies.

Watch closely now for young queens that may have been reared above the excluder. Use them in your new colonies and don't by any means allow them to get below into the brood chamber, for they will play havoc with the old mother queen if they do. Extract the honey from the combs that contain no brood and set them away for the use of swarms.

At swarming time form a brood chamber out of an empty comb-honey super and one case of those shallow combs, putting the empty supers on the bottom board. Leave it thus for seven or eight days to prevent the swarms from absconding; then remove the empty case beneath. If you wish, put on an excluder and replace the surplus cases. The queen excluder is not absolutely necessary though it tends to keep pollen out of the sections when the brood chamber is reduced in size. The surplus honey being removed at the close of the harvest, the swarm is allowed to occupy the shallow hive till the opening of the fall bloom. At that juncture the old queens are removed, the swarms returned to the parent hives by placing the shallow cases on top of them as at the beginning. This insures good work on the fall bloom, at the close of which the honey in the supers is extracted and the combs stored for similar use the following summer.

Now, don't you think that is the better way to work for honey? The system is safe, rapid and certain in its results. There is no longer an incessant need of one's presence in the apiary. Increase is kept down in a most efficient manner. There is lots of stimulation in it, for the jingle of bee-money in one's pocket is just the kind that counts at the finish. Don't tinker.

Wheelersburg, Ohio, May 4, 1905.

ADAPTABILITY REQUIRED.

BY F. GREINER.

THIS MAY be considered an idle question by some. Probably those who advocate that every farmer ought to keep a few stands of bees, would thus consider it. They seem to forget that comparatively few are adapted for the business.

Years ago, in this section of the country there were twenty-five bee-owners to every one now. Don't it pay to keep bees? Well, yes and no. The reason why so few now keep any bees is that those who were not adapted, dropped out, that is all. It has been a natural weeding out process of the unfit.

There is absolutely no use of fighting against nature's laws. If a man is adapted for the work he will succeed. It is as unreasonable for everybody to keep bees as it would be to try and raise ostrich-plumes. It does not work! It is not to be supposed that every farmer has the time and inclination to post up on bee culture. It takes a lot of time to do it and without one does understand the business thoroughly there is no use undertaking it.

There are a few small bee-yards left in my town, but the whole appearance of them does not inspire confidence in the business. Perhaps these yards consist of a few box-hives and two or three frame hives each. The box-hives look bad, weather-beaten, some in the grass by the fence. The frame hives, once good, well-made hives, stand around in every shape. Some tipped back, thus catching the rain, others tipped sidewise, etc. They show that the owner knows nothing about bees. Who will educate this man? I have in mind two bee owners living within four to five miles of me who onc kept large numbers of bees. The once purchased expensive hives fc them. But where are they today The hives lay around in their yard in every imaginable shape. You ca find them in their hen houses used a nests—in the cow stable as feed boxe etc. Why? Has disease made inroad upon their bees? Does it not pay t keep bees? I have located close b their side and obtained magnificei crops.

A few years ago I located an apiar some fifteen miles north of me in section where alsike clover is abun ant. Another man has some bees b a short distance from this yard. E is an old hand at it and has had ov 100 colonies at one time. His nan was mentioned in connection with be when I first came into this country- over thirty years ago. He has ma aged to keep in bees, to be sure, b what are his crops? He had at o time last season taken less than 4 pounds. When I took from a equal number over a ton. I saw h honey in the fall with a vie to buying it, but it was i very bad shape, and, althoug he pretended to have used separator the honey was not "crateable," besid being badly infested with moth larva He seemed to be utterly ignorant a to the nature of the wax-moth ar asserted that there was no possibilit of these insects having damaged h honey, for he had kept it in a close room in his fine dwelling all the tim We want Mr. Abbott or some oth man to come and educate all these pe ple and put them in a shape to con pete with us who make bee-keepin a specialty.

This brings us to the question What is a specialist? Some peopl will have it, that only he is a specialis who devotes his entire time to apicu ture. He, who earns a few dolla with his pen, they intimate, is not specialist in bee-keeping. He, wh grows his own garden stuff or produce some apples, peaches, pears, or plum or any other fruit, is not a specialis in bee-keeping. He, who keeps a co or some hens, is not a specialist in bee keeping, etc. Perhaps these people ar correct. But let us view this matte from a standpoint of common sense The very nature of the pursuit make it necessary to locate in the country. We can not all live in Buffalo, St. Joseph or some other city, where milk, butter, eggs, garden truck and fruit can be had for little money. The most of us are compelled to raise these things ourselves or let our families go without. In order to have a moral right to keep bees we ought to own some land upon which we live. This land produces pasture for not only the bees but the cow, the horses, the poultry. It may produce a little grain, uckwheat, corn, or some fruit. The specialist bee-keeper must attend to hese things. There is absolutely no ther alternative; and although he ight make more money if he could rop these other things, thus enabling im to keep more bees instead, he ust don't want to give up his good ome-made butter, clean, sweet, unatered or chalked milk, fresh eggs nd plenty of fruit. He, the specialist n bee-keeping, is satisfied with a maller bank account at the end of the eason for the sake of these other adantages. Nevertheless, he is a speialist bee-keeper. What else could he e called?

Some men have the stuff in them to anage a very large business. I now some farmers who own several rms, hundreds of acres, and can anage them successfully. Some oths have all they can do to manage 50 res or even less. It is a good deal with bee-keepers. Some can run a rge number of out-yarus and thus ake money, others could not do it, d still all may be specialists.

Naples, N. Y., Jan. 3, 1905.

HE NATIONAL CONVENTION

Meet in San Antonio, October 28-November 1.

The Inter-National Fair holds its nual exhibition in San Antonio, xas, Oct. 21st to Nov. 1st. When is fair is in progress, there are very v rates in force on the railroads out 600 or 700 miles. Then there are rvest excursions from the north on e 2nd and 4th Tuesdays of the nth. The 4th Tuesday in October nes on the 24th. Considering these ts, it has been decided to select turday, October 28th, as bee-keepe' day at the fair. This will give ple time for members from the rth to reach the city by starting the 24th. The regular sessions of the convention will begin Monday, October 30th, and continue three days.

The Fair Association has designated Saturday, Oct. 28th, as bee-keepers' day, and will so advertise it, and especial pains will be taken to have on exhibition hives, honey, wax, bees, and other apiarian products. At this fair will be on exhibition all of the agricultural and other products of the South and Mexico, and a visit to it will really be worth all the trip will cost, to give one an idea of the South and her products.

Then the Texas members propose to give a genuine Mexican supper which will be free to all outside members. There will be Mexican band and toast-making—in short it might be called a banquet. On Sunday the members can attend church or go on a trolley ride around the city. Side-trips to Uvalde and other places are planned for all who wish to see the country after the convention is over, bee-keepers at the various honey centers having promised to take bee-keepers around free of charge. Texas is one of the greatest, if not the greatest, of honey producing states in the Union, and bee-keepers will now have an opportunity to see her wonderful resources, enjoy the hospitalities of her people, and profit by meeting in convention, all at very small cost.

The headquarters of the National Association will be at the Bexar hotel (pronounced Baer, long sound of a), corner of Houston and Jefferson streets, and rates are only $1 a day, and up. The convention will be held at Elks' hall, 125 W. Commerce street, only two blocks from the Bexar hotel.

Everything is now all arranged except the program, and I wish that every one would write and make suggestions in regard to topics and men to discuss them. If you have no special topic that you wished put into the program, you must surely have some question that you would like brought before the convention. Pour in the suggestions and queries, and let me get up one of the best programs that we have ever had.

W. Z. HUTCHINSON, Sec.

Zeal without knowledge is like expedition to a man in the dark.—John Newton.

THE
Bee-Keeping World

Staff Contributors: F. GREINER and ADRIAN GETAZ.

Contributions to this Department are solicited from all quarters of the earth.

GERMANY.

JUST "CATCHING ON."

Hive inventors are still at work. Becker's divisible hive, described in Central-blatt seems modeled after the American style of hives. It has a brood chamber and separate supers for tiering up. It is undoubtedly constructed on a good principle.

SAYS ITS A MYSTERY.

Die Bienenphlege has this to say in regard to the instincts and qualifications the worker-bee possesses: "It is not possible that the worker can inherit such qualifications from the drone or queen (her parents) that are not also qualifications of the latter. The whole matter is wrapped up in mystery.

MAY BE SO IN GERMANY.

Reidenbach, editor of the Phalz. Bztg., is no friend of contracting the brood chamber during the winter season. He claims the bees need plenty of air and with a roomy hive they are more apt to have it. A large number of combs in the hive insure plenty of stores and sufficient breeding room in the spring. Some bee-keepers, he says, are very careful as to enlarging the brood chamber and add only one comb at a time. This requires a great deal of useless fussing. Bees with an unlimited brood chamber breed up just as fast and with such the bee-keeper does not miss it occasionally by neglecting his bees. A large brood chamber is the safest, and saves time!

AUSTRIA.

A great deal of complaint is made by Austrian bee-keepers of thieves visiting their beeyards.

Emperor Joseph I. is enthusiastically interested in bee culture, is frequently present at bee-keepers' meetings and conducts them.

SPAIN.

The bee-keepers of Barcelona hav established in one of the public park of the city an apiary for the purpos of making bee-keeping popular, instructing the public, etc. The apiar is said not to be very large and th honey stored by the bees above wha is needed for winter is distribute among the hospitals.—Schl. Hols Bztg.

SWITZERLAND.

H. Spuehler, Zuerrich, also condem the contracting of brood chambers an other useless fussy practices. H wants a large entrance at all times.

TRIED AGAIN AND FOUND WAN ING.

Tests with the Phacelia as a hon plant have not turned out favorab according to Schweiz. Bztg., althou the bloom lasted six weeks and be and bumblebees were frequent visito As a forage crop for stock the pla also did not meet the expectations the experimenters.

HIVE IMPROVEMENTS.

Kyburz reports an improvement the cupboard-fashioned European hiv which may be a step in advance. the reader knows the combs of the hives are removed from the rear, a in order to get at the last comb a hive all must be taken out. T inventor, Weber, has made the wh rabbet movable. Thus he can sl the whole set of combs out of hive, when any comb may be pick out as they can be out of open American hives.—Schweiz. Bztg.

PREFERS THE SWITZER.

Dannacher, of Bern, is very mu opposed to the importation of Ca olan bees, and makes the claim t the Switzer native stock is far sup ior to any Carniolan. Tests made s by side have shown that the Swit bees gave good yields of honey when the Carniolans swarmed themselves to death and did not gather even stores for winter.—Schweitz Bztg.

Dr. Dzierzon is too ill to write, reports Praxis der Bienenzucht.

Locust-honey is said by Grabener, n Prakl. Wewg., not to granulate.

SEEKS AMERICAN CAPITAL.

Specializing bee-keeping means keepng more bees to such an extent as o occupy all a man's time. Again, it neans reducing labor to a minimum, he object being to make as much noney out of the business as is possile.

The bee-keepers of the world have een at work on this problem and are till at it. Different methods have een studied out to accomplish it. Is ne Desideratum still to be found?

T. J. Herzog, of Frankfurt, claims ow, in a private letter, to have made discovery in this regard which puts verything known in the shade. He as two or more colonies working toether. He claims great simplicity for ne method, saving of labor, greatest ossible honey yields and absolutely o swarming.

The method is still held as a secret r Mr. Herzog. He would like to ave some American bee-keeping capalist take hold of the matter and ave it patented.

I am not posted on matters of this nd but it is a little doubtful, in my ind, whether or not the method is tentable.

If Herzog's invention has merit, in e interests of bee-keeping it would be good thing to have it made public operty somehow.

THE DUPLEX SYSTEM (?)

M. Weiss in Leipz. Bienenztg, deribes the following methods of treatg honey-producing colonies that are divisible brood chambers:

'A new bottom-board is placed close side the colony to be treated, and e upper brood chamber is lifted off d placed thereupon. Both single ood chambers are now covered with een-excluding metal, and the supers e placed upon them in such a way at the bes can enter from both artments. No attention is paid to e queen at the time of separation. The queenless part will rear a queen from brood present, and the storing of honey will go on uninterruptedly. The result will be a larger honey crop than if the colony had not been divided. The division may be a temporary one or the two may be left separated, thus doubling the number of colonies. If united at the close of the honey season the old queen can be removed.

HAVE THEY DIFFERENT ODORS?

A drone-breeding colony, if still populous, may be saved and cured by giving a queen cell with a young larvae, not a sealed cell. The former will always be accepted, while the latter will generally be destroyed, says Jaeckel in Leipz. Bztg.

ROOT WOULDN'T ENDORSE IT.

It may be ignorance or misconception on the part of the bee-keepers of Germany, of what the American "smoker" is, but it seems same does not find favor with them. On the other hand, they keep experimenting, trying to improve what they have in this line. Gerstung's smoker, as the latest, is illustrated in Praxis der Bzcht; it is to be patented. Of course, tobacco is to be used in it as fuel. Why not try the American smoker my dear friends?

MAY BE SO.

F. Dickel says in last number of Die Biene that bee-keepers, especially honey-producers, are wasting a great deal of money on high priced queens, so-called "superior stock," "red clover stock," etc.

TO PREVENT GRANULATION.

Extracted honey may be kept from granulating by heating in a solar device, and keeping it in same for four or five days immediately or any time after extracting, says Neuman in Centralblatt.

BEES AND BEE-KEEPING OF GERMAN EAST-AFRICA.

The bee inhabiting East-Africa is of a very bright yellow, very vicious and inclined to swarm. The reporter, M. Roth, thinks the swarming propensity is largely due to the hot climate, for when, perchance, a swarm finds a shady and cool location and a large cavity to fill, they swarm but little and send out large swarms when they do swarm. It seems to be not an uncommon thing for a colony to desert a hive after it has been filled with comb and broode. It has many enemies as, ants, wasps, lice, mice, birds, lizzards, etc. Diseases such as foul brood have not been noticed.

The natives—negroes—flnow very little else about bee-keeping than hunting and robbing them. On account of the viciousness of the bee (rubber gloves do not answer as a protection) the natives regard the be as "good" only when dead, similar to the Indian theory in America. Some times a log is hollowed out and set up as a hive trusting to luck to have it populated by a migrating swarm. Near the coast, where boxes are procurable, they are used for the same purpose. The natives fasten them in the tree tops, covering them with hides to keep them cool.

In rendering the honey excessive neatness is not practical shrdletaoin neatness is not practiced and brood honey and all go into a kettle, is heated up and strained through a cloth.—Bienen-Vater.

BELGIUM.

DRONES FROM VIRGIN QUEENS.

An experiment was made by a Swiss correspondent to find out if the drones from virgin queens are virile.

On February 24th, a colony having quite an amount of brood was unqueened. In due time several queens emerged and only one was kept. A queen-excluder was placed at the entrance and four drone combs introduced in the brood nest. The colony was well fed all the time. During five weeks that queen made the most desperate efforts to get out but without success; and finally gave it up, and began to lay in the drone combs. The 15th of May these combs, which were full of sealed brood, were distributed in three nuclei. Enough bees and one sealed queen cell were added to each nucleus. The three nuclei were transported in a deep uninhabited valley in the mountains where no drones from anywhere else could get. In due time the three cells hatched out, the queens were mated and proved to be as good as any.

WATERING BEES.

Sometimes in the spring of the year bees have to go to some distance t get the water necessary to dilute th old honey and pollen to feed the brooc Often they go out in too cold weathe or have to go too far, or the wate obtained may be quite cold. And th result is, a number of bees get chille and never return.

In discussing the best means t avoid such loss and provide the nece sary water, Mr. Dricot advises feedir a sufficient quantity of thin syrup a early as possible. Later it may b advisable, if the apiary is too far fro suitable water to place some wat at the disposition of the bees. Th best way is to put the water in sunny place, and in any convenie vessel as wide as possible. Sor clean moss is placed in the vessel afford the bees a foothold. In fee ing inside, the moss might be replac by a big coarse sponge.

HIVING SWARMS.

Mr. Petit, president of one of t apicultural societies of France, is so a lecturer on apicultural subjec and whenever he can he illustrates subjects by actual experiments. O of his favorite tricks is to hive swar with his bare arm. The sleeves a turned up as far as possible near shoulder and as tight as possible that no bee may get pinched betw the sleeves and the skin. He th pushes his arm into the middle of cluster as far as possible. With other hand he smokes the bees v slightly from the limbs of the tree his arm. In ten minutes the swa is settled on his arm and he wa around with it until he is ready shake it into a hive.

STARVED OR FROZEN.

One spring Mr. Arnold found a ony of bees dead, or apparently Starved, of couse (?) since no ho was in the hive. He left the hive o and exposed to the sun, it was a wa day, and went to work at someth else thinking the bees dead. A li later, passing by, he noticed some si of life, here a leg slowly stretch their some wings trembling or s antennae moving. Immediately s warm syrups was prepared and colony saved.

THE

merican Bee=Keeper

PUBLISHED MONTHLY.

THE W. T. FALCONER MANFG. CO.

Proprietors.

BLISHING OFFICE, - - - Fort Pierce Fla.
ME OFFICE. - - - - - - Falconer, N. Y.

RRY E. HILL, - - - - - - - *Editor*
THUR C. MILLER, - *Associate Editor*

Terms.

'ifty cents a year in advance; 2 copies 85 ıts; 3 copies $1.20; all to be sent to one stoffice.

'ostage prepaid in the United States and ıada; 10 cents extra to all countries in the tal union, and 20 cents extra to all othe: ıntries.

Advertising Rates.

'ifteen cents per line, 9 words; $2.00 per h. Five per cent. discount for two inserıs; seven per cent. for three insertions; nty per cent. for twelve insertions.

dvertisements must be received on or be: the 15th of each month to insure inserı in the month following.

latters relating in any way to business uld invariably be addressed to

THE AMERICAN BEE-KEEPER,
Falconer, N. Y.

rticles for publication or letters exclusively the editorial department may be addressed

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Editorial.

[r. David A. Gaylord, Hatfield, ., reports a very cold, backward ng and much rain up to time of ting—June 9.

Honey-dealers in Boston, are still ling quite a good deal of last seas honey crop. They claim they not explain, and see no good reafor honey not having sold better," es Mr. F. Greiner, Naples, N. Y., e 5.

ır Denver correspondent, under of June 17, advises that hail ns in northern Colorado have deyed much of the first cutting of fa, and that as the season is late, it is difficult to foretell the extent of the season's crop of honey. Bees are said to be in good condition.

"Let the bee-keeper bear in mind that no instructions, however complete, can take the place of private judgment. He must use his own intelligence and adapt the details of his methods to the exact conditions under which he works."—T. J. Crowe, Irish Bee Journal.

Mr. John C. Frank, Earlville, Ill., makes a hive stand which he prefers to any other, by making a rim, of inch stuff, five inches wide, of the desired size to suit the hive in use, and in each corner nail a heavy block in which is bored a hole to take a half-inch machine bolt. The bolts serve as legs, which rest upon four bricks, and the hive is accurately levelled by use of a wrench.

Mr. John M. Lange, Jr., Monticello, Ia., writes: "When I read that editorial on page 59 of the Bee-Keeper for March, I was much pleased, for it was just what I have wanted some editor to say. 'Improvement is the order of the day,' and bee-keepers should carefully test the merits of an article before reporting. It is unfair to condemn a thing simply because one may not happen to know anything about it."

New Zealand has in prospect a bee journal of its own, to be established and edited by Mr. G. J. S. Small, of Marton, who is now the authorized correspondent and agent of the American Bee-Keeper in that far-off land, in which the first "Bee Expert" has recently been appointed by the government, in the person of Mr. Isaac Hopkins. The move was first set on foot by Mr. Small who is, naturally, gratified by the success of his efforts.

In wiring frames, Mr. A. J. Gray, Ballston, N. Y., fastens his frame securely in a form, places the spool of wire on a wire spike in line with the lower hole pierced through the end-bar, threads the wire, secures the end to a five-eighths brad which is driven down, then takes up the slack, and by pressure of thumb draws them quite tight, though not enough to spring the end-bars. The wire is then wound once around another brad at starting point and secured. He says nimble fingers can wire sixty-five frames per hour in this way and have them all square and neat.

More honey crops are lost from too much fussing with the bees than from all other causes together.

Is orange blossom honey the popular food during the honey-moon? If one is dependent upon the other the scarcity of the first may account for the brevity of the last.

When cutting combs from frames if they are straight along the top bar leave a row of cells as a guide, for such guides are cheaper and better than those of foundation.

That person who so manages his bees that they not only keep themselves but yield a surplus, season after season, can justly be called a bee-master; while that person who has to be constantly feeding his bees is, at best, but a clumsy bungler. To be the first requires close observation, forethought, and sound judgment. Any one can become an accomplished bungler.

"Rambler" and the writer were one day discussing the profit and loss phases of bee-keeping, and incidentally reference was made to one of the fraternity who never seemed able to "make both ends meet." Said Rambler, "when you can not have both ends meet then have one meat and t'other vegetables," which was his droll way of advising living within one's means.

In the June issue Mr. W. J. Davis says regarding the mating of queens and drones, that it is claimed that it has never been witnessed by man. The first authentic report of the witnessing of the union was by Rev. Mr. Millette of Whitemarsh, Pa., in June, 1859, and the next by Mr. W. W. Cary in July, 1860. Since then many have reported having seen it. If some of the camera enthusiasts among our bee-keepers will be alert they may in time secure us photos of this and many other interesting and valuable things in bee life.

Hundreds of our readers have bee kind enough to address a few posta cards to bee-keepers for us, and al have received for their trouble fro six months to a year credit on sul scription account. The plan is provin very successful. If the reader ha not done so, we should be pleased t have him write to the Falconer offic for cards.

In the department of the Bee-Kee ing World, Mr. Frey is quoted as ha ing a colony of Syrian blood which no time of the year is without som drones. It is not uncommon for S rians and Cyprians and their cross to have both laying workers and good fertile queen in the same colo at the same time. Quite probab many a good queen has been co demned for the acts of laying worke

Gleanings, in its June 1st issue, h an article from the pen of E. D. Tow send on the use of extracting com and sections in the same super, usi the combs instead of bait sectio two combs to a super, one next each outside wall. The editor ha it as something new and of mu promise. The method is so old that supposed it was universally kno Mr. Samuel Cushman (then of Pa tucket, R. I.,) and the writer beg using it about 1885 and the writer used it ever since, having hives a supers specially made to facilit such practice. It has been mentio by many writers, if memory serves correctly.

The indiscriminate transposition combs in the brood chamber is wise. First, it breaks up the nor arrangement of brood, which often sults in the destruction of much of particularly so if the colony is very populous. Also the insert within the limits of the brood clus of combs more or less filled with len, or even with honey, when latter is coming in fairly well, will ten cause a decided upset in the ho keeping arrangements of the bees. queen, too, is disturbed in her w and swarming is not infrequently duced. One eminent beemaster alw gives a quick scratch across the t of the frames before removing th so as to be able to replace them actly as they were before.

PERSONAL TO THE READER.

The American Bee-Keeper has for ears been alert to discover among s constantly increasing number of eaders, those who possess some talent r writing entertainingly and who ave the faculty of discovering that hich may prove of interest to fellow aftsmen. Our efforts in this direction ave not been in vain, for we are equently recognizing such talent. owever, we earnestly desire to hear om more of our readers with items r publication, and with this end in ew, we propose to award each onth, during the remaining five onths of the current year, four an- al subscriptions to the Florida Mag- ine, published in Philadelphia, a autifully illustrated monthly maga- e, with many pictures in colors, and subjects relating to "the land of wers."

These twenty subscriptions will go those who write, not the longest ticles, but to those who put the st interest into the smallest space.

Should our amateur friends evince fficient interest in the proposition, shall not hesitate to increase the mber of subscriptions that we shall ard.

Try this evening, and compete for prize this month, observing the fol- ving rules:

Do not use a pencil. Write upon but side of the paper. Leave ample ice at top and margin of paper. oid abbreviations. Be brief and the point.

Subscriptions for winning articles l begin the following month.

"HOW TO KEEP BEES."

nother book on bees has appeared. is from the press of Doubleday, ge & Co., which bespeaks the ex- ence of the press work. The book entitled "How to Keep Bees," and by Anna Botsford Comstock, who he preface announces it as a book meet the needs of the beginners in keeping. As such it is good. The ructions are simple and direct, and illustrations supplement the text. author rather rashly recommends ain tools and appliances at the e time admitting lack of experi- with others. This perhaps is bet- than a confusing list of the various implements, but one feels justified in asking of a would-be instructor that at least some practical knowledge of various types of an implement be had before recommending a particular one. The author is very evidently the follower of one particular line of instruction in apiculture, one unfortunately whose teachings are biased by prejudice and commerce. In most things, however, for beginners this book is an improvement over anything we have yet had in this country.

EDUCATING BEES.

The following, written some years ago, by Gen. D. L. Adair, is worth reprinting:

In nothing the bees do can we perceive anything that indicates the workings of reason, or even the sagacity of higher animals that are capable of imitating, and through that instinct can be taught to do things that they do not comprehend.

We see a certain thing done which we know they have never seen done before, and without any instruction, which we know man could not do without much instruction and a long practice. We see them repeat the same work, but it is always under the same circumstances, and they always do it in the same manner; everything is made exactly alike and of the same material; whereas, no two men work alike, nor any one man twice alike. They do a thing that is to produce a certain effect, and at a time when it is absolutely necessary that they should do it, without any experience, and without even knowing what they are doing, why they are doing it or what will be the result.

In proof of this, take a sheet of brood that is just ready to emerge from the cells. Brush every bee off, place it in a hive where it will not chill, and let the bees come out. A sheet ten inches square will produce five thousand. Not one of these bees ever saw an egg, nor queen, nor a grub, nor a queen-cell. Now give them a piece of comb containing eggs. As the grubs hatch out those bees that never saw a grub before take the honey and pollen, prepare it fit for the tender larvae. They feed them just the quantity they need, neither more nor less, sooner nor later. From the most of them they rear workers like themselves; from others perhaps drones are produced.

This is truly wonderful; but more wonderful still these bees that have never seen their mother, and have had no means of being informed of the necessity of a queen to continue the race, set to work and construct cells different from any before in the hive; different from any they have ever seen before. The larvae over and around which they build them are furnished with food in greater quantities and, it may be, different in quality. It is at least more thoroughly digested or prepared as we may infer from the fact that the larvae fed on it mature more rapidly.

All of this work is evidently done blindly, and positively without knowledge or instruction; intending nothing, meaning nothing, and not designing to do what it accomplishes. The result is the production of a description of bees unknown to them before, so different from all in the hive that they have no instincts common with them.

In like manner we might follow the bees in all they do without finding any proof that they have the least glimmer of reason, or that they are capable of departing in the smallest degree from the blind impulses of their unvarying instinct.

PRODUCING BEESWAX.

Dr. J. B. Pons, one of the most extensive and most progressive apiarists of Cuba, whose apiarian headquarters is located in "the Valley of Hell," by the way, writing under date of June 6th, complains of a very unsatisfactory condition of the Cuban honey market, saying:

"The honey producing business here becomes daily less encouraging, as, when good crops are secured, prices are so low that there is no profit in it for the producer; and higher prices are quoted only when there is but little or nothing to market. Last year when we had a good crop, we could get but 26 cents per gallon, Spanish gold, and this year, with but a meagre harvest, the price is up to 37 cents."

Seeking a practicable way out of the difficulty, Dr. Pons says hereafter he proposes to produce more beeswax, as the price of this staple is always uniform and profitable, and asks what The Bee-Keeper thinks of the proposition.

Sixteen or eighteen years ago t editor of The Bee-Keeper publicly e pressed his opinion that the proble of turning cheap honey into wax, w one worthy of experiment and caref test, and outlined, theoretically, method of operation that appear practicable in tropical countries, b the suggestion was met with derisi comment by Mr. Hasty, whose offic duty appears to be to say alleg funny things and ridicule ideas a practices not in vogue in Lucas co ty, Ohio, where he is evidently qu conversant with things apiarian.

The day has arrived wherein care thought is bound to be given this s ject, and we believe profitable resu will accrue to the originator of a pl that shall prove practicable—as so one, no doubt, will do in the near ture.

The appliances, in working for w may be inexpensive, compared w those essential to the honey produ and the market for beeswax has ways been, and promises to conti to be active at good prices.

With reference to the matter hives, earth, or adobe, possesses three-fold advantage of cheapness, ing a nonconductor of heat and of affording a surface to which will not attach the combs, so the entire contents may readily be ed with the roof or lid and inverted the convenience of the operator, u the walls.

The sun affords the necessary for rendering the combs into the ch est of wax, while the enduring war of tropical climates makes possible unceasing secretion of wax-scales the bees.

Dr. Pon's resolution is commend and his experiments will be wat with interest.

We believe we are justified in ing that each issue of The Bee-Ke contains more items of value to readers than can be found in any er bee paper. These items are b clear and comprehensive. They thus prepared that our readers grasp the points with the least penditure of time. If you see thi we do then tell others about it, fo more subscribers we have the we can develop the paper, and more you will get in return.

A REVIEW.

When selecting material for this is-
ue, the following anonymous letter
vas found upon the copy hook. We
hink, however, that our readers will
ecognize the ear-marks.—Editor.

So ye had to get that Rhode Island
Iiller to help ye out did ye? What,
e ye gettin old or lazy? Ye never
vas lazy and I don't see as ye are
etting allfired old, so I spose I must
rant ye did it for the best. I'll see
ow ye trot together for awhile afore
express my opinion of the team. Now,
ee here, I want to talk to ye about
ie June paper. Taking to poetry
ome and its a good idee when the
elections is good.

Sixty years among the bees is a
urty long time. Wonder what some
f 'em as has been boasting about
alf that number of years will do
ow?

So Bro. Hall takes seriously our
iffy on the merits of Ontario honey.
.e is old enough to know we uns
etter than that. Howsumever it is
ood honey and after this puff look
it for the carloads of honey labeled
Made in Ontario."

The Hanegan-Jacobs method of
iipment looks like a good thing and
iey say it is, that goes.

The Agricultural Department's pro-
osed study of honey and pollen ca-
icities of new plants sounds good.
elp it along.

Progressiveness, eh! Miller's pro-
essiveness! It'll stir some of the
ys, see if it don't.

French's story of his brick-top
oiary run for comb honey sounds
ther laborious. Eighty days of work
i one hundred and twenty-five col-
iies will stagger some of we uns.

Just read Greiner's "Good Scheme"
ain. Lot of good meat there.

Bro. Andre says he used to lose
lonies that were weak in the spring,
id stopped it by putting in new
rings.

Friction of the Factions in England
d Ireland don't seem as unseemly
Watson as it seemed in the Irish
e Journal. Reckon if the seams
is ripped all might join and fashion
new garment.

Tariff revision of honey, is it? Well
me out of the discussion for I
ve no desire to get twixt the Re-
sionists and the Stand Patters.

Mr. Raudin is quoted as feeding lump sugar to his bees. Phew! If Miller gets after him I see his finish.

The Bee-Keeping World is mighty good, and them headings of the different paragraphs are prime fun.

Editorial pages. Say which is who's? Wish I knew. No, I don't neither. It's more sport guessing, and they are lots of fun anyway. Um, how spicy! Quite a scheme, that of slipping in apt quotations. Watch the rest adopt it.

Well, I must flit. Ahhh.

PROF. SLADEN'S BOOK.

There lies upon our desk a neat little book entitled "Queen Rearing in England" by F. W. Sladen, F. E. S., proprietor of the Ripple Court Apiary, near Dover, England, and published in London in 1905. It opens with a colored frontispiece showing a "Golden Italian Queen" and an "Extra Golden Worker Bee." They are produced on a scale one and a half times natural size, and make a very pretty beginning. The work embraces Queen-rearing in Nature; Modern Queen-rearing; Nuclei and Fertilization of Queens; How to Save Queens Reared under the Swarming Impulse; Drones and Drone-rearing; Introduction of Queens and Sending Queens by Post; Races of Bees, Breeding for Improvement; A Scent Producing Organ in the Abdomen of the Worker-bee; The Honey Bees of India; and Enemies of the Honey Bee in South Africa.

In the parts devoted to queen-rearing, introducing, nuclei, etc., there is nothing new; it being but a description of the cell cup and caging systems well known here.

The chapters on the Scent Producing Organ, The Honey Bees of India, and Enemies of Bees in South Africa, are, however, quite interesting. The so-called scent organ is the little white stripe which the worker shows between the fifth and sixth segments of the abdomen, visible under certain conditions. Many bee-keepers may have noticed it without suspecting that the little white spot had any special function. To the casual observer it looks as if the bee in her excitement had extended the abdominal rings too far and that the joint of one had slipped out.

Of the Honey Bees of India there are

referred to Apis dorsata, and a darker variety of the same known as A. zonata, both of which are spoken of as vicious stingers and poor workers. Apis florea is a tiny bee, very pretty, building a comb no bigger than a man's hand, and generally in some bush. A. indica is somewhat smaller than our honey bee, possesses similar habits to it, and is capable of domestication. They are as yellow as the golden Italians with which we are familiar. A somewhat larger black bee (not classified) is found in the higher altitudes where it is kept in domestication. They are said not to sting but make themselves annoying by buzzing in the operator's face. A similar bee was found in Ceylon.

The book is written in the careful conservative style of the scientist, which is decidedly refreshing after the loose and dogmatic phraseology common to most bee books. No price is given.

Honey and Beeswax Market.

Denver, June 17.—The supply of honey is larger than the demand and some comb honey will he carried over. We quote our market today as follows: No. 1 white, $2.20 per 24-section crate; No. 2 light amber, $2.00; No. 2, $1.75. Extracted, 6 1-2c to 7c. Beeswax, wanted at 26c.

Colorado Honey Producers' Association.
1440 Market St.

Buffalo, June 12.—The supply of honey is moderate, with light demand. We quote our market today as follows: 12c to 13c for fancy; grades, 7c to 10c. Beeswax, 28c to 30c. No new arrivals noticed yet. Fancy old sells fairly well but lower grades very dull and slow.

Batterson & Co.

Kansas City, Mo., June 13.—The honey market here is from $2.00 to $2.25, according to the grade and quality. We think that new honey, strictly white No. 1 will sell for about $2.50, other grades in proportion to the quality and color of the honey. Beeswax 28c.

C. C. Clemmons & Co.

Chicago, June 7.—The volume of sales are infinitesimal; hence prices are not considered to be important at this season. Comb brings 12c to 12 1-2c per pound for best grades, off lots at 7c to 10c; extracted 5c to 7c, according to what it is. Beeswax sells upon arrival at 30c per pound.

R. A. Burnett & Co.
199 So. Water St.

Cincinnati, June 2.—There is only a fair demand for honey at the present time. We quote amber extracted honey in barrels at 4 3-4c to 6c, according to quality. White clover extracted at 6 1-2c to 8c. The comb honey market is practically closed for the summer. Beeswax is wanted at 29c.

The Fred W. Muth Co.
No. 51 Walnut St.

Boston, May 9.—There is no change to note, in condition of honey market, from that of our letter of April 24.

Blake, Scott & Lee Co.

To paraphrase an early writer: "Beedom is something like a barrel of pork. The meat that's at the top is sometimes not as good as that that's a grain lower down; the upper and lower ends are plaguey apt to have a little taint in 'em, but the middle is always good.

Four New Departments

I publish and recommend to you **THE RURAL BEE KEEPER**, the best all-round $1.00 monthly bee journal in America. On trial three months for this ad. with 20c. Or send us 50c for a three months' trial and your name and address on a two-line rubber stamp (self-inking pad 25c extra.) Or

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and an untested Italian queen bee. Sample copy free. Agents get liberal terms.

We count that day lost which does not show some improvement in **The Rural Bee Keeper.** So soon as we can find the right party to conduct the departments, we will establish a department for advanced bee keepers and a kindergarten for the new beginners. We also want to benefit our readers in the West and want to establish a "Department of the Middle West" and a "Pacific Coast Department." Our Foreign and Southern Departments are very gratifying to us.

We solicit your subscription and your moral support.

W. H. PUTNAM
RIVER FALLS, WISCONSIN

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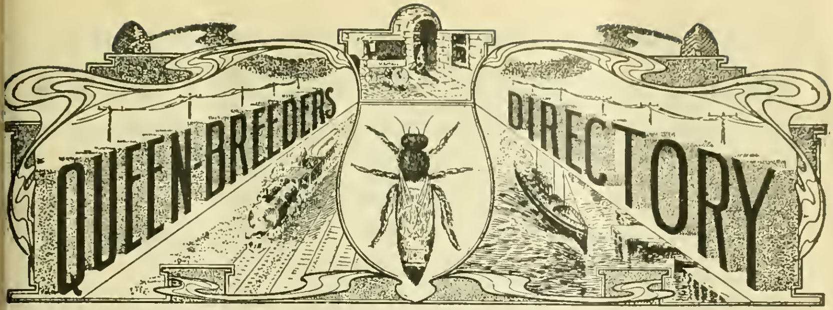
If so send for a copy of The Farm and Real Estate Journal. It has lands advertised in it from nearly every state in the Union; also city property of all kinds and stocks of goods for sale or exchange. So that anyone looking for a home or a location can find anything he wishes in this Journal. It reaches 33,000 readers every issue and is one of the best advertising mediums to reach the farmer and home-seeker. Advertising rates 2c per word for small ads, or $1 per inch single column each insertion. Send 75c and we will mail you the Journal for one year, or for 10c in silver or stamps we will send it for two months' on trial. And Journal will be stopped at the end of two months if you don't renew. No copies sent free.

H-Feb. tf

Farm & Real Estate Journal
Traer, Tama Co, Iowa



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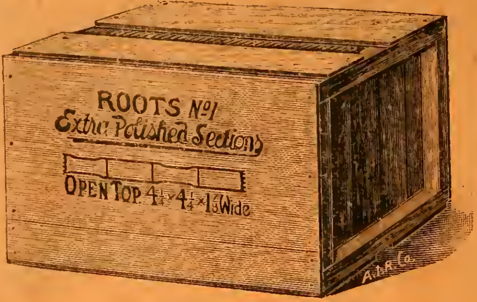

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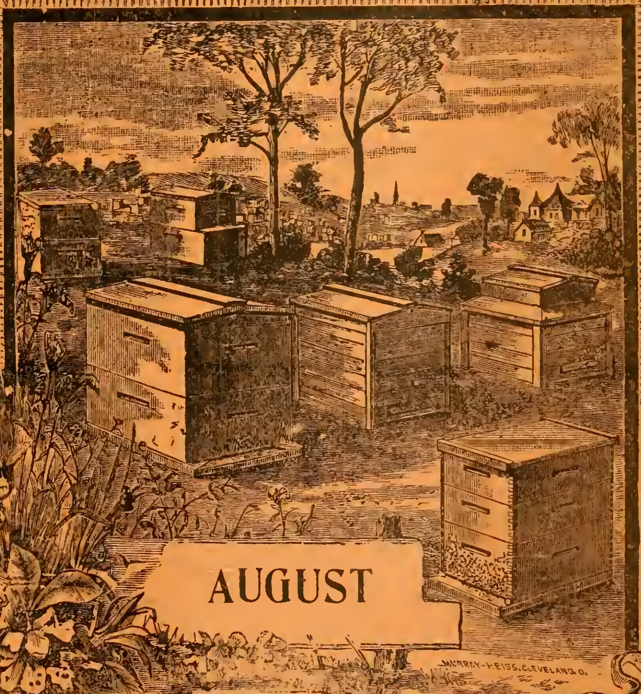
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AUGUST

VOL. XV 1905 NO. 8

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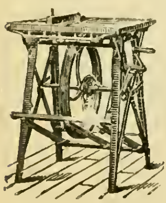

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1-5tf

AHEAD OF SHOOK-SWARMING

The March *Review* is now in process of preparation, and will be out about the middle of the month. One article in this issue will be by H. G Sibbald of Canada, and he will describe a new system of management that promises to be away ahead of shook-swarming. It has these advantages: No shaking of the bees; no handling of the brood; no possibility of the queen being in the wrong hive; no danger of after-swarming; no increase unless desired (but easy to secure if wanted); no queen cells to hunt up and destroy; yet the whole force of bees may be kept together the whole season, and each colony may be requeened with a queen from a naturally built cell.

This is only a single article in one issue o the *Review*, but it is a fair sample of what yo are losing if you don't read the *Review*, and o what you will gain if you read it. Send $1.0 for the *Review* for 1905; or if you prefer, yo can send ten cents, and when the March issu is out it will be sent to you, and the te cents may apply on any subscription sent i during the year

W. Z. Hutchinson,

Flint, Mich.

THE AMERICAN BEE-KEEPER

Vol. XV AUGUST, 1905. No. 8

The Real and the Unreal.

BY JOE CONE.

YOU take the crowded city streets,
With life and shops galore;
I'll take the little woodland paths
Down by the river shore.
You take the public gardens where
All is arranged by plan;
I'll take the scenes laid out by God.
And undisturbed by man.

You take the fountain on the lawn,
And listen to its tale;
I'll listen to the little brook
That murmurs through the vale.
You live the artificial life,
And I will live the real;
And joy will come to me in mine
That yours can ne'er reveal.

—Suburban Life.

AUGUST IN THE APIARY.

BY ARTHUR C. MILLER.

AUGUST TO MOST of us seemingly the very height of the bee season is yet a critical time in bee management. The prosperity of the colonies tempts to division and increase. Winter seems far away, so far that it seems absurd to think of it much less take any steps toward preparing for it. But the veteran well knows that not only does the successful wintering of his bees depend upon his management now but that his next season's honey crop will be materially diminished by lack of proper care at this time.

Now is the time to requeen all colonies having queens two years old, and by two years old bee-keepers mean those which are completing their second honey season. Hence queens reared in late July and August should be good for the next two summers, while queens reared last spring before the honey harvest should be replaced a year from now. Some bee-keepers requeen every fall, others permit the bees to look out for this matter themselves, but the most profitable way seems to be the biennial method.

At this time, when in most places little or no honey is being gathered, it is well and easy to weed out poor combs replacing them with good ones or sheets of foundation. The keeper of but a few colonies may get much pleasure in cutting out patches of drone comb, crooked places, etc., and fitting in their place pieces of straight worker comb. It is even possible to patch out combs with pieces of foundation. To the keeper of many colonies, the sorting over of combs is often neglected though there is little question that the work is profitable. The busy bee-keeper, however, has no time for cutting and patching, all poor combs going into the wax extractor.

If the apiarist has a choice colony from which he wishes to rear drones, now is the time to put in some drone comb. The best place to put a sheet of drone comb is the second from the side of the hive. For very early drones the best results will be secured where the lower third of three or four of the central combs are of drone cells. It is well when going through the colonies now to fill out each hive with its full complement of combs and get the brood chamber in such shape tha
it will not have to be materially dis
turbed again. If some colonies hav
an excess of sealed combs of hone
the surplus may be given to less pros
perous stocks. The principle is t
so arrange the combs that the bee
may be left from now on as undisturb
ed as possible, to the end that the
may patch and repair and glue to the
hearts' content and arrange the
stores as their instincts guide ther
When man meddles with their wi
ter larder he is very apt to so disa
range it as to cause more or less di
astrous loss even to the extent
death of the colony.

In localities favored with a hon
flow from fall flowers a surplus
some times secured, but often it
more profitable to let the bees crow
the brood nest all they can. If t
colonies contain vigorous queens the
is no danger of there being too mu
stored. Fall nectar is as good as a
other for wintering provided there a
bees enough to properly ripen it.
the cool fall nights it requires a goo
ly population to ripen the nectar a
in all too many colonies at that se
son the population is small. Vigoro
queens will prevent this. It is th
that a contracted entrance and outsi
protection are valuable aids.

Providence, R. I., June 11, 1905.

DISPOSING OF THE HONEY CR

BY F. GREINER.

THE PROBLEM of how to prod
honey is, I believe, practica
solved. Every bee-keeper who
been with us for the past ten years
acquainted with about all the kin
short cuts and general methods pr
ticed by successful honey producers

The older bee-keepers, I belie
could go on to the end of their car
and produce honey with reasona
success, if they did not hear or r
another word about bee-keeping a
honey production. But how we
get the most money out of our ho
is as yet an unsolved problem. Ta
a beginner, for example, what is
to do with his honey? He is quite
to sell it to his groceryman at anyth
he can get, and take it in trade at th
I had some experience again this p
season which shows that this is
way some bee-keepers dispose of th
honey. I found the finest honey

Wayland store, which had been ought at 10 cents per pound. I had ot better honey to show than this vas, and I wanted 15 cents for mine.

The reason small bee-keepers will ell at such prices is, they are not osted on the market value of their roduce. If we could induce these riends of ours to attend such meet- ngs as ours here, such business would e stopped. It would be more profit- ble for the small bee-keeper to ship is honey to the commission man, he ould thus obtain more than he can t the average country store. This is y experience. I am not paid by the ommission houses to advertise their usiness, but I want to say that it my opinion, they have a right to xist—nay, they are a necessary link the chain between producer and nsumer. I ship quite a little produce commission houses and seldom ob- in less than I am offered by produce uyers. I do not yet see how we can et along without some middle man to andle our product.

Supposing our association goes into e business of buying up the honey or stablishing commission houses in dif- rent cities. Would it not cost some- ing to run them, and would not the oducer have to foot the bills?

If we send Mr. Niver out to sell our ney, will we not have to pay him? believe the commission principle is e right one, and I can not compre- nd in what other way the National sociation or some honey exchange as it is styled in California—could ndle the business. There is not the sh procurable to pay down five per nt on shipments of honey. Where ould that money come from? the ney producers have not got it! Let y one explain who knows!

I would, of course, urge every pro- cer of honey to sell all he can in s home market. But it is not true Mr. E. R. Root said before the . Louis convention that bee-keepers o peddle their honey obtain from e-third to one-half more for it; at st it is not true here.

Many times I am unable to obtain en the wholesale price (minus the mmission and freight) and selling at ail at that; not by the case, but the section. What incentive is there induce a bee-keeper to peddle?

Editor Hutchinson said at St. Louis: is poor policy to send your honey to a commission house and sit around all winter bottoming chairs or holding down dry goods boxes when good money can be made selling honey during these leisure months." Well said for Hutchinson, but I would rather ship my honey to a commission house and get my money in a nice big lump and at a higher price than obtainable at home than to fool away a lot of time selling in a small way with many unpleasant experiences thrown in besides, even if it was necessary to bottom chairs during the winter. Fortunately though, it is not necessary for a man to idle away his time in that way, judging others by myself.

There is only one redeeming feature about this selling honey at home as I see it. It creates a market for our product and relieves the city market of just that much. It is the city market that governs the price in a great measure, and the more honey we can keep out of the city the better will be the prices. If therefore, the honey producers acted in union and tried to sell at home as much of their product as possible, prices would gradually climb up. I ship very little extracted honey away, but what I did ship to commission men has brought me 10 cents net, for fancy white put up in glass. This is as much as is obtainable here at retail.

I want to caution the beginner, however, about shipping honey to every commission house. There are reliable firms as well as unreliable ones. If the bee-keeper's crop is small he would better sell at home until he becomes known as a honey producer. His reputation will be all the more quickly established if he goes around peddling, visiting private houses and grocery stores in all near by places. People will soon know him as a honey man and inquiries for his honey will come. Then if he sees fit and prices are acceptable he can sell at home or abroad as seems best in his judgment.

I do not object to the establishing of a honey exchange of a national character. But it seems to me the hindrances are unsurmountable. It will take a host of clerks to handle the honey crop of the United States and it is not to be expected but that an unprincipled element will creep in just the same as it does now into the commission house force. If Mr. France could handle the honey all himself, or some other man in whom we all have implicit faith and who is absolutely reliable, and if all bee-keepers were honest, it would be made to work. I do not expect to see the plan materialize.

As to what honey ought to bring the bee-keeper, in other words, what he ought to sell it at, we will not be able to settle. The market value of honey is a very uncertain quantity, depending on the quantity produced and the purchasing power of the public. Possibly some other factor may come in for consideration. Mr. Root carried the idea at St. Louis that honey did not bring enough compared with other things. Our friend York said honey ought to bring 50 per cent more, but I can not agree with them. Gentlemen, honey is too high now. That is the principal reason we do not sell more of it at home. When bee-keepers realize a profit of from eight to twenty dollars per hive, as it appears from reading reports in bee journals, at the low price of 14 cents per pound for No. 1 comb honey, has he any reason to complain? What other business would give him an income like that? Basing my opinion upon what I read, bee-keepers are in clover; and honey is plenty high enough. If I could obtain Doolittle yields I could sell comb honey at 5 cents a pound with a profit.

I do not oppose the idea that our honey should be advertised. I believe in it. If we can raise funds enough I would suggest to use a whole page of every large paper in America for a honey advertisement.

If we should make a selection of photos from our apiaries, showing the bees, hives and the ways we work them, etc., having these reproduced and appearing with our advertisements I have no doubt it would draw. It would open the eyes of the public. I am obliged to agree with our friend York of the American Bee Journal on this point of making a market for our product. Naturally I belong to the opposition every time, but there are cases when it is necessary for me to agree.

It will take a lot of money to advertise our honey effectively. If we don't pool our interests and let the money come forth, it can not be done.

Naples, N. Y.

TIERING UP.

Other Notes and Comments.

BY GEO. B. HOWE.

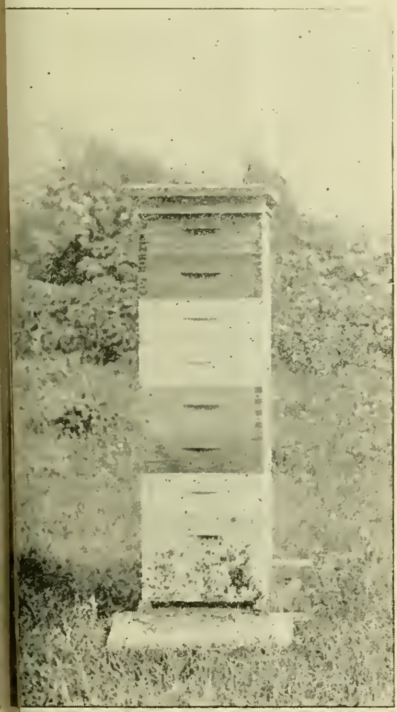
EDITOR American Bee-Keeper: I am sending you some photos of bee hives run on the tiering up plan for comb honey.

You will see that I do not believe in the Hershiser plan of two supers on a hive. I claim that bees have got to have a super two or three days be-

fore they need it for storing hone as the comb builders should have tl super to build or draw the foundatio so the field bees can have a place put the nectar or it will be lost. raise the supers up as fast as the fill them and put an empty one und with full sheets of foundation. B keeping them drawing comb and n letting them cap any in the lower s per until the last of the honey flo I can get as nice white fancy hon over old black combs as with ne combs. Don't raise the first super until they commence to cap a little in the center boxes.

I have had as many as eight supers on one hive at a time, but, as a general thing, I think five supers are as many as should be on a hive at a ime. I have taken off four supers at one time—96 boxes and all fancy honey except two.

I use an escape board. I never have any trouble with bees not leav- ng unless there is brood, or a queen



ill some times be in super.

There is a lot of honey ruined every ar in removing it from the hive by ing too much smoke to get the bees t. The honey will taste of smoke. ow while most people like smoked eats, there is hardly any one that es smoked honey.

I know that by giving plenty of pers, and lots of ventilation from ttom of hive you will control swarm- g to a certain extent.

I would like to ask those who make e claim that the form of a cube is the natural shape of brood chamber, to find a bee tree and cut it and tell us what shape it is. I have cut bee trees where the hollow was from eight to ten feet in length and from eight to twelve inches through, and where the bees had used the comb for brood was three or four feet in length.

Keep your honey where it is dry and warm. Do not put it in a cellar or near anything with a strong odor, such as onions, kerosene, etc., as it is very sensitive to such things.

I would say to Prof. Cook that the queen ant pulls her own wings off after mating. This can be easily proven by watching her after the queen and drone separate.

Black River, N. Y., June 15, 1905.

PROFITABLE MARKETING.

A Suggestion for the Consideration of the Smaller Producer.

BY J. MILTON WEIR.

REALIZING THAT bee-keepers have of late years lost a great deal of honey by not getting it, as an Irishman might say; and that the prices received for their limited output have been ridiculously low, the writer has been tempted to tell what he believes to be the most natural means of improving existing conditions.

Many bee-keepers produce, in a fair season, several tons of honey, principally extracted, which at a net price of four and a half or five cents per pound, brings them only a few hundred dollars.

Now, according to prices paid for other goods, honey is easily worth two or three times that which is now paid for it, but the question is to make the public demand it at the advanced figures.

There are certain goods which are on sale at all grocery stores and which everybody uses, such as condensed milk, canned meats, breakfast foods, rolled oats, various canned syrups, Uneeda biscuit, etc. These goods are in practically universal use, and canned or in packages have largely superseded similar goods in bulk.

If we could bring honey into this class, the problem of marketing would be solved, and producers sure of an income.

As will be seen, there are particular features about these articles which undoubtedly have a great deal to do with their popularity, and a definite business policy in presenting them to the public. Such goods are put up in packages of moderate size, so that they will all be used before they are apt to spoil or deteriorate. Such sizes are also very convenient to handle. The size most commonly used weighs about two pounds. The package itself is as inexpensive as possible to properly preserve the goods contained. Not only is the cost kept down, but the purchaser is not worried about spending his money on something to be thrown away. The wrapper or label is made of an attractive appearance with a few brief and striking statements of the uncommon merits of the goods enclosed, printed so as to catch the eye; and concise directions for use. The whole idea is to attract and please, and to convince the purchaser.

The manufacturer of such an article uses every means to attract the attention of the public to his goods. Premium offers are often enclosed, and he advertises in all classes of publications. Advertising is a most important factor in pushing sales; and bringing the public to your own way of thinking has been brought to a science. It is a matter for regret that this is a practical impossibility for the average bee-keeper, or even associations of bee-keepers, as any adequate campaign of advertising would cost many thousands of dollars.

It is suggested that bee-keepers practice putting their product in marketable shape similar to that described.

There is no doubt that much better returns may be had by putting honey in handy and attractive packages. Mr. Selzer has been extremely successful in working out this idea in Philadelphia.

Most people living within easy reach of their grocers give orders every morning, buying only enough for the needs of the day. Being in the habit of buying in small quantities, for the advantage of variety, they do not care to take honey in large cans or jars.

The writer once attempted to dispose of a quantity of honey in St. Augustine. Carrying a sample of fine honey, he visited each of the large retail groceries. Proprietors and clerks all were eager and curious, but seemed somewhat awestricken with the idea of a whole barrel of honey. "A barrel of honey!" they would exclaim, "Why, we sell honey in pound bottles and it is not often called for at that. A barrel of honey would last us fo years." If they had been supplied wit honey in small cans, probably it woul have met with a ready sale.

Bottles, jars and tumblers are to expensive for the small quantity o honey they contain.

Mason jars are expensive and ar not a popular package for groceries Lard pails are clumsy and apt to b sloppy, while square cans are ex pensive and are too large. Most o these vessels hold too much or to little to become popular. What woul seem to be the logical retail packag for honey is the inexpensive tw pound, round, friction-cap tin can. Th is now used for a great variety goods. It is similar to the commo tomato can with the exception th it is sealed with a pressed tin plu which is forced into the opening, ma ing a perfectly tight joint. This ca is cheap, of popular shape and siz it is easily filled, easily sealed a easily packed, and could be display to advantage on shelves with oth canned stuff. It would hold about thr pounds of honey.

A suitable label should be past around the can; and right here a some important points: The lab should be gotten up by some one co petent and experienced. The print matter should be bright and catch and should state the merits of the a ticle in a brief and pointed mann so that it might be read at a glance.

A few words might be added to t effect that honey is a natural foo consists mainly of grapesugar, and m be used to advantage where oth sweets are injurious. It should al be stated that honey is apt to beco solid with cold, but may be liquefi by the application of heat. The should be a space for the name of t variety and the signature of the p ducer, with the words, "Not genui unless this space is properly filled."

Long-winded, prosy statemen should be avoided, as they are seld read.

If the public could once become customed to such an article, small p ducers should be able to dispose

heir crops of canned honey at the
ocal stores without the worry and
rouble now attending such a transac-
ion, and those having large crops
hould find a ready sale with the deal-
rs in their nearest town, instead of
eing compelled to ship their honey in
ulk to the great cities, as now.

Distribution is the great problem
marketing any crop, and if the poli-
y here outlined were carried out it
ould be solved. Consider a moment:
mall producers of honey are scattered
rough every county in every state
the Union. If each should sell his
rop in his own immediate territory
e honey would be distributed!

Heretofore when a man has made a
ipment to a merchant in his own
ty, that merchant has often reshipped
a commission house, taking his own
rcentage from the commission man's
turns.

It is said that only a small percent-
e of the honey produced is used on
e table, the remainder going into
anufactories. When the public de-
ands honey on the same scale as
tter, coffee or sugar, the supply will
t more than equal the demand, pro-
cers will be able to sell nearly di-
ct to the consumer and a great deal
business will be taken out
the hands of middle men to the
mediate profit of the bee-keeper.

Fort Pierce, Fla., July 18, 1905.

FOUNDATION IN SECTION-HONEY.

s Use Strongly Condemned.

BY F. GREINER.

T HAS SURPRISED me when I
read what statements the associate
editor, Arthur Miller, made in re-
rd to sugar being used largely to
oduce comb honey. It is difficult
r me to believe any such a thing,
ssibly because I have never even
ought of doing it myself and know
no other bee-keeper in my vicin-
who does.

But, as friend Miller has taken up
e cudgel and is hot after this kind
adulteration, I wonder if he will
t go a step farther and pursue the
her adulterators of comb honey who
t only use comb foundation in full
eets, yes even with bottom starters
that, but openly advocate its use?
believe the use of foundation in sections is largely responsible for the many stories of manufactured comb honey, which are circulating as well as the readiness with which they find believers. A consumer of honey reasons thus: "If these bee-keepers are shrewd enough to give us a substitute for the comb, they will surely know enough to mix up the syrup and do the rest."

Editor Hutchinson values comb honey built by the bees at 5 cents per pound above the article that is built on artificial foundation. There is fully such a difference in the value and in the cost of production. Comb honey with artificial foundation as a base should be branded as a fraud without each box of honey, each section, has on it in plain letters: "The honey contained in this box is built on artificial midrib."

Our bee journals could help the matter along by keeping a standing list of bee-keepers in their journals who will not use comb foundation in section honey, at least not more than one square inch per box, which is sufficient to start the bees straight. I don't wish to be too hard on the foundation users by asking the publication of their names. Wishing to be an honest man, wishing to deal fairly with my fellow-men, I know I could not look them in the face unblushingly if I had outwitted them by selling them an inferior article of comb honey at a high price, a price which in their innocence they were supposing to pay for the genuine bee product.

Comb foundation is a good thing, but the health food congress should be after it when it is used in comb honey offered for sale.

The poorer an article we produce, the more adulteration we practice, the more we will have to advertise to make a market. It would only seem fair that the foundation users pay the bill for the advertising to be done by the Honey Producers' League. The dues of the straight men, if they are expected to join the League, should be so low as to be nominal. The good article will advertise itself; it is the poor article which needs advertising.

Naples, N. Y., July 4, 1905.

Dull care! Dull care! the poet sings,
And smites his mournful harp.
My cares are more distressing things
They're all uncommon sharp.

WINTERING BEES IN SWARTHMORE MATING BOXES

With Little Over a Half Pint of Bees to Each Box.

BY E. L. PRATT.

FOR YEARS the northern queen breeders have been hunting for a plan to winter over extra queens in an economical way in order that they might enter the market and compete with the southern breeders in the early-queen trade. It is in spring that the demand for queens is heavy and owing to the northerner's inability to furnish queens before the month of June, prices naturally range quite high and many a queenless colony has suffered because of the inadequate supply of queens in early spring.

If the honey producer could winter a number of extra queens to supply winter losses at just the right time many a good colony might be saved which would mean at the close of the season so much more honey for market.

I have successfully wintered queens in Swarthmore mating boxes with less than a pint of bees to each queen and have, I believe, solved the problem of early queen traffic for the northern breeder.

It is surprising how well these little clusters of bees withstand the cold and blow of our severe northern latitude—the rate of death seems much less in proportion to the strong standard colony—but being in compact cluster directly on full combs of select honey, I suppose, they have every chance. Where the full colony may become separated these little clusters are closely confined in a given space.

I have not found it necessary to even cellar them. I of course provide shelter from the wind and storm, either by placing the boxes inside a standard hive body with a tight roof (four to a hive) and a flight hole on each side; or, inside a shed or small house with flight holes bored through the boarding.

In making up these wintering boxes I take up two or three cupfuls of young bees as explained in my book "Baby Nuclei" and just before winter actually arrives I give each box two fat combs of good honey—do this on a warm day to give the bees a chance to settle as they like upon the combs. Do not disturb them again until spring when they should be examined and supplied with more honey if needed by changing the comb containing the least brood, for one of honey.

To prevent any possibility of the queens wandering away from the cluster place a piece of queen ex- -ding metal over the the flight hole inside. A three-quarter inch fl is none too large for wintering in Swarthmore mating boxes.

Swarthmore, Pa., March 15

A HIVE OPENING T

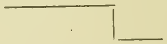
BY M. F. REEVE.

TERE is a handy imple have around at extracti or any time when you h to open. It is powerful enoug the cover off a hive or the a house if you only have leve ough.

The idea was obtained from lar's jimmy at Philadelphia headquarters.

The one I had made cost me cents.

I picked up a piece of narr riage spring from scrap pile the blacksmith forge the tool from it. In shape it was li



The whole length was about 12 1- inches and the blacksmith tapered th two ends to a sharpe edge so as t allow for inserting it in narrow crev ces. It worked well with propolize frames.

Rutledge, Pa., Sept. 13, 1904.

CHAUTAUQUA SEASON.

The New York State Summer Insti tute at Chautauqua will be open fo four weeks, from July 10 to Augu 4th, and again arrangements have bee made whereby members of the inst tute will be entitled to free gate tic ets at Chautauqua and to the priv eges of the classes of the Chautauqu Institution Summer Schools during t entire six weeks of the session. T conditions of these privileges are gi en below. Members of the institu will be exempt from gate fees Chautauqua July 8th-August 19th i clusive.

Members of the institute are entitled to free tuition from July 10-August 18th inclusive in any two courses not starred of those offered in the schools of English, Modern Languages, Classical Languages, Mathematics and Science and Pedagogy. See pages 4 to 14. By ial arrangement with the Prin- Instruction and the Director nstitute, principals and academers may be admitted to three instead of two.

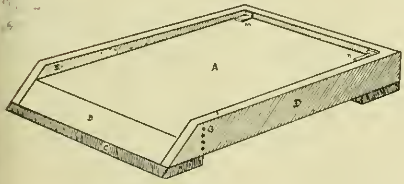
ers intending to become mem- he institute should upon reachutauqua purchase single day for admission to the grounds. hey have registered as mem- e cost of their tickets, if pur- during the above dates, will rned to them.

COMBINED HIVE STAND.

Y OTTO LUHDORFF.

l B is the bottom and alight- rd nailed together, solid.

bottom-board is at m and n to the main frame, either by of leather or hinges; strong is preferable.



At o are three or four holes, also on the opposite side, for putting in one nail on each side, on which the bottom-board will rest in front. By changing the nails the height of the entrance can be adjusted at will, or even be closed entirely.

Two cross-boards on the bottom make the whole solid.

This bottom-board has the advantage against the Danzenbaker, that there are no grooves which collect dirt and clog. The whole bottom-board is one solid surface and can easily be cleaned. No patent.

Visalia, Calif., Feb., 23, 1905.

"We read in books a hundred awful rules
"And, called to act, are only learned fools."

COMB HONEY.

In March, 1905, there was formed in Chicago and incorporated the following month in Illinois an organization called the Honey Producers' League. One of its objects is "to publish facts about honey and counteract misrepresentations of the same." It is hoped through the efforts of this league, with the co-operation of the leading newspapers and magazines of our country, to turn the tide in favor of the use of honey as a daily food and also, as before stated, to endeavor to correct the popular delusion that comb honey is a man-made article.

Some twenty-five years ago a noted "professor," in order to work off a superabundance of "fun," as he termed it, published the statement that honey comb was manufactured, then filled with glucose and sealed over, all with appropriate machinery. It seems that the press of those days was waiting to welcome such a yarn and forthwith scattered the news throughout the length and breadth of the land. It was so well done and seemed to be so eagerly swallowed by the public that its unfortunate repetition has been going on during all the years. The very best of metropolitan dailies, as well as the most conservative monthlies of largest circulations, have been deceived by the comb honey misrepresentations and have unwittingly aided in its further dissemination.

Almost for the last twenty years there has been a standing offer of $1,000 made by a reputable firm for just one pound of the so-called manufactured comb honey. But if there is any such article in existence, strange to say no one has as yet proved his claim to the reward offered. The fact is, comb honey has never been made except by bees, as otherwise it is a mechanical impossibility.

It is true that the liquid honey—honey taken from the original honey comb by centrifugal force—is sometimes adulterated with glucose and offered as a pure article, but the various state food laws are fast getting after such adulteration and either compelling its true labelling or driving it from the open market. At least since the passage and enforcement of such laws in various states adulterated liquid honey is disappearing from the field of food products.

To sum up, then, any comb honey found upon the market in small wooden frames can be relied upon as being absolutely pure bees' honey. Of course, the flavor may not always be the same, as each nectar-yielding variety of flower produces honey of its own peculiar aroma, just as the pure maple sugar or syrup tastes of the maple and not of the beech or oak.

It may be said, further, that the prospects for a generous crop of honey to be harvested throughout the country the next two or three months seem to be excellent at this time. So in all probability there will be plenty of this most healthful sweet for every inhabitant in the land, and each should see to it that he gets his share.

GEORGE W. YORK,
Manager the Honey Producers' League,
Chicago.—Chicago Daily News.

Don't Discourage the Philadelphian

A Philadelphian has established a bee colony on the roof of his place of business with a view to cultivating bee stings for the cure of rheumatism. The man may be foolish, but he is not mad.

The theory of the rheumatism relieving power of the bee sting, according to the Scientific American, is one of long standing, especially in some country districts. There is a remote possibility that the poison of the sting may neutralize the acid in the blood which is presumed to be the cause of rheumatism, but Professor Benton, the bee expert of the entomological division of the Agricultural Department, does not think so. He himself suffers from rheumatism at certain times of the year, although he has been stung by bees many thousand times.

At his own suggestion he took a honey bee and, holding it by its wings, allowed the insect to sting his hand. After separating the body from the sting, the latter, by convulsive muscular action, forced its way still deeper into the flesh, thus supporting the theory held on this point by the Philadelphia man and many others, that the sting remains active after separation; but the professor's observation is that parting with its sting does not, contrary to popular belief, kill the bee.

It appears that the immediate incentive to the Philadelphia man is the announcement of an enterprising firm of manufacturing chemists in the Quaker city that it will buy up all the bee stings that may be offered at the rate of $10 a thousand, with the purpose of monopolizing the rheumatism cure.

How to extract the stings profitably was, of course, the most difficult problem confronting the Philadelphian, but he seems to have solved it in a way. Taking advantage of the well known antipathy of the bee to the horse, or to anything that is touched by the odor of the horse, he rubs a ruber cloth over one of these animals, places it in a position convenient to the bees, when the latter, driving at it furiously, bury their darts in the fabric, and in attempting to draw back leave them there. Then the Philadelphia man picks the stings out, counts them, packs them, and when he has a thousand of them he will test the sincerity of the chemical concern.

It is suspected in scientific as well as in other circles that the manufacturing chemists are advertising for bee stings with the purpose of later on introducing a rheumatism cure which will be "just as good." However this may be, the idea that the bee sting industry could possibly be monopolized is pronounced to be utterly absurd by those who are familar with bee culture in this country. A hive or colony of bees, says Professor Benton, ordinarily contains from 30,000 to 60,000 insects. There are many apiaries in the United States which contain from 1,500 to 1,700 colonies, and if these do not average more than 50,000 bees to the colony the production of bee sting poison for the cure of rheumatism, assuming that there was any serious intention of commercializing the stings, would be sufficient for half a year to supply the demand for half a century. The only way, therefore, in which the bee sting monopolist could maintain his bee sting plant on a profitable basis would be to discover some means whereby the number of rheumatics in the world might be multiplied many times over.

Still, nothing should be said or done at present to discourage the Philadelphia man. It would be cruel to throw cold water upon anything that promised to take the form of an original enterprise in Philadelphia.—Chicago Inter-Ocean.

THE

Bee-Keeping World

Staff Contributors: F. GREINER and ADRIAN GETAZ.

Contributions to this Department are solicited from all quarters of the earth.

AUSTRIA.

A bee-keeper by the name of Gergelyi has come to the conclusion according to the Leipz. Bztg. that clipping queens does not pay. He clipped 80 of his queens and now complains that the queens, when bees were swarming, dropped down onto the ground and many were lost. Later swarms issued with virgin queens and he was worse off than he would have been without the clipping. The wonder to the writer is, that no editorial remark is offered, saying Gergelyi did not conceive the object of the practice of clipping. What did the man expect?

GERMANY.

GENERAL NOTES.

Pirson says in Praxis der Bzcht. that it is a better plan to do the extracting at the closing of the basswood honey season rather than to do frequent extracting thus keeping different kinds of honey separate but also secure rather green honey.

The same writer also recommends the use of acid phenique for subduing bees. One-fourth to one-third ounce with a quart of water. Saturate a cloth and spread it over the exposed frames. After five minutes the bees have become submissive and may be handled with but little additional smoke.

In removing honey from the hive he would prefer to use the Porter bee escape, but his hives are not properly constructed for its use. He wants to use four of the escapes in one board (a single one answers the purpose just as well. The Gleaner).

When extracting, he says, run the extractor at moderate speed at first, "thus emptying the cells on one side of the combs partially, reverse the combs and run at full speed, reverse again and run at full speed. The observing operator will learn this after a very few trials without any instruction and the same plan has recently been spoken of in the Bienen-Vater by the Gleaner.

Doering proposes to solve the problem of effecting a sale of German honey by establishing an advertising sheet and sending it out to dealers, hotels, restaurants, etc. He suspects that 20,000 bee-keepers will join, raise a fund to defray the expenses, etc. It is hopeful the scheme will materialize. It all depends on the bee-keepers themselves and the faith they have in the undertaking. The cost of issuing and mailing is estimated to require about $10,000.

The gist of a long article by Martens in Prakt. Bzcht is this: Eat plenty of honey and thus save doctor bills and funeral expenses.

Dickhaut has tested Apis Americana for two years now and his verdict in Leipz. Bztng. is this: They gather more honey than other races, Italians included; they are very docile; they are most handsome, and queens very prolific. Whether they have longer tongues than other races he has not ascertained.

It is stated by Alberti in his book on bee culture that most localities in Germany are fully stocked up with bees, i. e., to the profitable limit, when as many as 30 or 40 colonies are therein. This may explain why Germany has not many big bee yards, although there are more bee-keepers.

Dr. V. B. very urgently advises in several different German bee-periodicals against the use of bisulphide of carbon; says it is very explosive and too dangerous to use by unskilled people.

Hardy Norwegian bees are advertised in Deutsche Bzcht.

Here is the new grading of honey as practiced by a certain German druggist: Extra fine bee-honey, pure bee-honey—bee-honey, honey. Definitions of these terms are not given.

Valentin Wuest, a noted naturalist, observed that bumble bees often cut holes through long-tubed flowers to obtain the honey concealed at the bottom of the corolla. Thus they open up the way for our bees, which are not slow of taking advantage of this welcome opportunity.—Ill. Bztg.

SIBERIA.

During the closing of the eighteenth century the Cossacks in West Siberia began to pay attention to keeping bees. Bees were imported as a starter. The conditions being favorable bees multiplied rapidly and during 1902 it is said in Leipz. Bztg. the number of colonies had increased to 15,029, from which was harvested 46,978 pounds of honey and 4,077 pounds of wax (a very small average, it seems to the writer).

BELGIUM.

From Le Rucher Belge.

PROTECTING COMBS.

To keep empty combs free from the moth, sulphuring (?) is probably the best remedy yet. Mr. Leger says, however, that later on other moths may come and deposit their eggs; but that can be prevented by putting in the box some walnut leaves (English walnut). The odor of the leaves will keep off any kind of moth or butterfly.

CAMPING OUT.

A correspondent says that during the flow, the bees go out as late as they can and sometimes so late that the night overtakes them. They then spend the night somewhere under a leaf, in some crack or any other shelter and come back in the morning. It is easy to verify it by closing the hives at night. In the morning these outsiders will be found coming in and trying to get in.

LATE BREEDING.

Mr. Wathelet says that one winter two colonies showed some signs of dysentery. After examination, which took place in a warm day in January, quite a number of young Italian bees were found. The two colonies had been Italianized during November. Evidently, the new queens had laid a considerable amount of brood, a large portion of which did not hatch, (or rather, emerge) from the cells unti the weather was too cold for flying. It may not be generally known tha the abdomens of young bees when they emerge are full and these mus be voided soon after. In such cases if the weather is already too cold fo flying, they are voided in the hive and thus give, at least, the appearances of dysentery.

LAYING WORKERS.

It is difficult to requeen a colon affected with laying workers. Mr Wathelet advises giving a queen cel enclosed in a cell protector.

FRANCE.

WHOSE BE THEY?

A farmer saw a swarm passing b and coming no one knew where from He followed it. Said swarm finall went into an empty hive in neighboring apiary. The apiarist hap pened to be there and saw it go in Whose property is that swarm?—L Revue Eclectique.

TAKE YOUR CHOICE.

Any doctor or scientist can tell yo that the human skin is coated with very slight amount of an oily or greas substance. Recently Mr. Rouvier, pro fessor of biology and member of th French academy of sciences, has suc ceeded in separating enough of it t make a complete study. He found i to be a substance almost similar t the beeswax.—Revue Eclectique.

EVAPORATION OF NECTAR.

Turning back a few numbers of th American Bee-Keeper, the reader wi find a long article on some exper ments made by Mr. Huillon on th transformation of nectar into honey These experiments have been exter sively commented on by several Euro pean writers. Several quotations show ing the flight of the bee when goin back home, have been brought to no tice. The most remarkable is one origin ally made by Mr. Babaz, several year ago. He conceived the idea of feedin very thin syrups out of doors. He say that the bees on coming from the feeder to the hives (the distance was about 160 feet) expel some of the water in the form of a mist, very easily seen. When the work is very active, this mist wets the grass and other objects under the path followed by the bees. If tasted it is found to be absolutely pure water. The same fact is reported by Maurice Girard in his work on bees. It may be added here that Maurice Girard is an authority in matters pertaining to "bee-ology" and entomology. His position in France is similar to that of Cheshire and Cowan in England.—Revue Eclectique.

PREFERS SIDE-STORING.

Mr. Dobbrar constructs his hives so as to place the surplus apartments behind the brood nest,instead of above. He says he obtains better results by so doing. (This applies to extracted honey.)—Revue Eclectique.

THE WONDERFUL QUEEN.

In discussing the laying of queens Mr. Ignotus calls attention to the fact that in the height of the season, a queen may lay 2,000 eggs a day. These 2,000 eggs weigh 40 grams. A virgin queen weighs 20 grams. Hence the queen lays in a day a weight of eggs twice that of her own body. However perfect the food given the queen by the nurse bees may be, its weight must exceed somewhat the weight of the eggs produced. Something must be added to sustain the queen herself and enable her to fulfill her task. So a laying queen may consume perhaps as much as three times the weight of her body, of food.—Revue Eclectique.

USES FOR WAX.

Everybody who reads this knows that oleomargarine is sold for butter or consumed in place of butter. As long as it is sold on its own merits, I do not see any right to object. The process of fabrication is described in the Apiculteur. The only point that may interest bee-keepers is the fact that in order to obtain a salable or rather palatable product, a small proportion of beeswax must be added. The question was asked if a small addition of wax to butter would not improve it also. No experiment has been made in that direction. A small quantity of honey added when salting, decidedly improves the taste and keeping qualities. A patent has been taken for the manufacturing of condensed milk, using honey instead of sugar. To 100 pounds of milk are added one-half pound of honey, two ounces of horse radish and one-half pound of salt. The whole is heated to about 90 degrees Fahrenheit and then put in the vacuum pans and evaporated to one-third of its original bulk. The horse radish is excellent to destroy bacilli and other noxious germs. A little of it put in a barrel of cider will stop the fermentation by destroying the alcohol-producing germs.

THEY DON'T FIT.

Mr. Devauchelle has tried foundation made with cells larger than the natural cells (I presume he means drone cells, though it is not very clear.) The object was to prevent any possibility of the queen laying therein. These cells were built and filled with honey, even when placed in the brood nest. Only once a few eggs were deposited. No drones were raised from them, however, perhaps because the flow stopped soon after.—L'Apiculteur.

ANOTHER SECRET OUT.

The editor of the beginners' department of the Apiculteur says that the wax produced in the early and late parts of the year is whiter than that of the middle summer. The difference of temperature is supposed to be the cause.

FIXING THE PRICE OF HONEY.

The Apiculteur advises that the annual meeting of bee-keepers of the country situated around Paris was held as usual on the 19th of June at the hall of the Central Society.

This annual meeting is held chiefly in view of setting the price of the present year's crop of honey. Other meetings having the same object in view are held in several parts of Europe. The idea is not to set the price for the whole state, but only for a certain locality usually the neighborhood of a certain market. For instance, the bee-keepers of the portion of Illinois adjoining Chicago could hold such a meeting and those around each important city do the same, each for their nearest market. The idea is at least worth considering in this country. None but the producers are admitted to these meetings. Dealers either in honey or in bee-keepers' supplies are not admitted.

WHOLESALE ABSCONDING.

This spring (1905) in the country around Becoules (Aveyron) a considerable number of colonies have absconded. Sometimes as many as three-fourths or more of the apiary. No cause can be assigned. Nearly all left more or less honey behind.—L'Apiculteur.

WINTERING WITHOUT COMBS.

Mr. Ziche succeeded in wintering a late swarm without combs. He had it in a sufficiently warm room and fed it with liquid honey throughout the winter.—L'Apiculteur.

GERMAN HONEY IMPORTS.

The Apiculteur discussing the prices of honey states that Hamburg is becoming more and more the market for honey importation in Europe. No recent figures were available. But in 1901 the importation was 8,300,000 pounds at an average price of 12 cents a pound. Nearly half of it was from Chili and about 700,000 pounds from the United States. The Chilian honey is quoted at an average price of 11 cents and that from the United States 14 cents a pound. In 1902 the importation from Cuba was considerably higher than in 1901, about equal to that from Chili and the prices about the same—nearly 10 cents. The importation from the United States had also increased to a little over a million pounds but the average price fell to a fraction over 10 cents. The importation from France to Hamburg is small, but the prices are quite high comparatively—14 cents in 1901 and 22 cents in 1902. The total importation for 1902 was 7,550,000 pounds. The honey from Chili is decidedly inferior and that from Cuba not much better. Both hurt the price of the United States honey, as there all of it goes indiscriminately as American honey.

The meeting of the Apiculteur of the country around Paris had fixed the price of the 1904 crops at 12 cents. But it is reported that in some other parts of France sales in very large quant ties were made at lower figures, in on case as low as 9 cents. In the sam number of the paper wax is quoted 33 to 37 cents a pound, according quality. It must be remembered th all the above figures refer to extracte honey.

WE HAVEN'T TRIED IT.

Mr. Simplice reports that a sma quantity of honey added to butt (when putting in the salt) improv its taste considerably and that su butter keeps much better than whe otherwise treated.—L'Apiculteur.

ADVANTAGE OF DRAWN COMB

A series of studies on the adva tages of hiving swarms on combs now in course of publication in t Apiculteur. In the first experime a number of swarms were hived empty hives and another set furnish with enough built combs to fill on one-third of each hive. At the six day all were weighed and those ha ing the combs had a little over thr times as much honey gathered as t others. For a few days after t sixth, those hived on empty com were slightly ahead in the amou gathered, or, rather, stored. This thought to be due to the fact th they had less brood to feed.

A very large swarm which had half set of combs gathered eighte pounds in three days. Without com these eighteen pounds would have be reduced to nothing. The writer, Abbe Martin, thinks that hiving wi out combs means a loss of fully fo days of possible gathering and in locality that occurs during the ma flow and constitutes one-fifth of honey crop, the flow lasting abo twenty days.

ILL EFFECT OF THEIR "OW VINE AND FIG TREE."

Mr. Weber states that in the autur when the leaves are falling, the col nies placed under fig trees lose a c siderable number of bees which lo as if sick with some kind of paralys When the fact was first brought his attention he would not believe A second case leads him to think th there is more than a mere coinciden and that the dying fig leaves may some how or other, poisonous to t bees.—L'Apiculteur.

NEW HIVE AND ITS MANAGEMENT.

Mr. Pincot uses to some extent and refers a hive similar to the Heddon. he differences are that the sections re higher (a little over six inches) nd contain frames hung in the usual shion. The sections and also the over are double walled and thus have ll the advantages of the chaff hives. sually, two sections constitute the rood nest, and one, two or three, as ay be necessary, the surplus apartent. These are placed so that the rames are crosswise of those of the rood nest. That simple change of osition prevents the queen from going p in the surplus. Needless to say at the sections are square otherwise would be impossible.

To prevent swarming an empty story placed between the two constituting e brood nest, the top one is turned cross, and soon the queen will be the new one and as fast as the ees emerge in the upper one honey ill take their place. The description not very clear, but I presume that empty story" means a story with npty combs already built.

Artificial increase is practised by parating the two stories constituting e brood nest. To queen a queenless lony, exchange one of the stories ith a good colony.—L'Apiculteur.

FROM FRYING-PAN TO FIRE.

A study of the effect of high imort duties on the price of honey different parts of Europe does not em very conclusive. It seems that e suppression or diminished importaon duties have had the effect of stimlating the production of "artificial" oneys. And instead of being benefitd, the bee-keepers have merely vapped one evil for a worse one.—'Apiculteur.

IGHT DISPOSE OF IT THAT WAY

In the line of advertising honey, it suggested to have some presented to urch bazaars and other charitable les.—L'Apiculteur.

IT SOUNDS ALL RIGHT.

A splendid ginger bread, or rather similar kind of confection, can be ade very easily with honey, and is id to be of the best as to taste nd keeping qualities. Here is the recipe: Warm on a slow fire 1 pound of honey until well liquefied, add gradually 1 pound of flour, stirring all the time. Add also a pinch of ground cinnamon and 1-2 ounce of carbonate of ammonia. The carbonate of ammonia must be dissolved first in a little brandy. It takes a few hours to dissolve well. (I presume that some good brand of baking powder would answer the purpose.) Let the dough cool for about 24 hours and bake in a slow oven, until the crust is crisp.—L'Apiculteur.

A STANDARD OF STRENGTH.

What constitutes a strong colony? Mr. Pincot uses Voirnol hives. These hives are nearly cubic and contain 10 square frames about 11 1-2 by 11 1-2 inches. A glass is fitted behind and a door or shutter over it so as to keep the hive dark. When near the honey flow, an examination is made looking through the glass. If bees are seen only on four or five frames the colony is united to some other. With six or seven frames covered, the colony is considered weak, and in his locality may give 30 to 40 pounds of surplus in a good year. A really strong colony covering the 10 frames will under the same circumstances give 120 or even 160 pounds of surplus. He mentioned the fact that a large swarm of 13 pounds gave 110 pounds of surplus beside building its combs and keeping 38 pounds of honey for winter.—L'Apiculteur.

USES A ROLLER TO ELEVATE THE HONEY.

Sometimes in the spring, or even in summer, there is some capped honey in the brood nest that the bees refuse to disturb, when, so far as the apiarist is concerned, such honey ought to go in the supers and make room for more brood. It is advised to uncap it in order to compel the bees to remove it. The trouble is that the uncapped honey runs out, daubs the bees, and often starts robbing. Mr. Beaux in such cases, does the uncapping with a small roller having teeth about 3 1-6 of an inch long and placed about that distance apart on the roller. That instrument tears the cappings enough to induce the bees to remove the honey, but does not cause it to leak enough to do any damage.—L'Apiculteur.

CLOISTERING HIVE.

Mr. Gouttefangas has invented a hive or rather an addition to his hive that could be "added" to almost any kind. It has an anteroom, or closed portico in front of the regular hive. The front wall of it is hinged at the bottom. Two tubes or pipes about two inches in diameter, as far as I can judge, by the figures given, extend from the bottom of the anteroom through the roof or top to outside. The lower half of these tubes is perforated with small holes. The top is covered by a cap of such shape as to admit air but no light. The size of the anteroom is perhaps near one-fourth of that of the hive proper.

The readers of the this paper may remember the mention made about a year ago of the "consignator" of Mr. Preuss. This was practically only a kind of wire cloth cage placed in front of the hive to prevent the bees from flying and yet admit the necessary ventilation. The defect of the Preuss apparatus was that the bees worried themselves to death in trying to get out. At least, a certain portion of them did before the rest finally gave up the attempt.

The invention of Messrs. J. M. and J. B. Gouttefangas avoids that defect. The anteroom being completely dark, the bees do not worry themselves out in trying to get away. The two tubes give a far better ventilation than the wire cloth. In fact, the apparatus can be closed at any time without any danger of smothering the colony.

But the reader will now ask what is the use of it? This requires some explanation. The climate of Europe, while on the average colder than that of the United States, is far more regular. There are no such sudden changes, no such intense cold waves as here. Furthermore, the difference between summer and winter is considerably less. The result is what we would call very cool summers and mild winters, and as a consequence in wintering bees out of doors, towards spring, a number of bees fly out every day that is sufficiently warm and very often in days not warm enough to fly safely. The result is a considerable loss of bees during the early spring.

It is to prevent this loss that the Gouttefangas apparatus has been i vented. It is known beyond doul now that the bees go out so mu during the early spring in order get water to thin down the old hon and make it suitable for brood foo The Gouttefangas apparatus has feeder to give the bees the wat necessary or if needed, any syru or honey whenever the apiarist thin best to do so.

The apparatus is useful in ma other occasions. For instance, feed weak colonies safely, to stop ro bing, or to confine moved bees a f days and thus prevent them from g ing back. Many times when worki in the apiary during a dearth of hone I have wished for some way to clo all the hives and work in peace long as I wanted to.

LONG MEMORIES.

A correspondent in July, 1901, mov some of his colonies in another cality to take advantage of large fiel of buckwheat. Seven weeks la they were brought back. Twelve c onies were placed in another part the apiary for some reason or oth During the first few days they we frequently to the old place, and fr there to their hives. But that was ly during a few days. The remar ble part of it is that the same f occurred the following spring. Fo few days the bees from the displac colonies, when coming from the fie went first to their original stands a from there to their hives.—L'Apic teur.

Another correspondent hives swarms on foundation that has alrea been drawn in full colonies.—L'A culteur.

LONG LIVED.

Mr. Capponi reports that a colo became queenless on the 27th of Ap 1902. That was the only Italian que of the whole neighborhood. Anot queen, a black one, was given. May, 1903, a year later, there w yet in that colony a few Italian be —L'Apiculteur.

We would caution our readers w live in cities, towns or villages, agai permitting their bees storing the ju of Electric Currents.

THE

American Bee-Keeper

PUBLISHED MONTHLY.

THE W. T. FALCONER MANFG. CO.

Proprietors.

UBLISHING OFFICE, - - - Fort Pierce Fla.
IOME OFFICE. - - - - - Falconer, N. Y.

IARRY E. HILL, - - - - - - - *Editor*
RTHUR C. MILLER, - *Associate Editor*

Terms.

Fifty cents a year in advance; 2 copies 85 ents; 3 copies $1.20; all to be sent to one ostoffice.

Postage prepaid in the United States and anada; 10 cents extra to all countries in the ostal union, and 20 cents extra to all oth ountries.

Advertising Rates.

Fifteen cents per line, 9 words; $2.00 per nch. Five per cent. discount for two inserions; seven per cent. for three insertions; wenty per cent. for twelve insertions.

Advertisements must be received on or beore the 15th of each month to insure inserion in the month following.

Matters relating in any way to business hould invariably be addressed to
THE AMERICAN BEE-KEEPER,
Falconer, N. Y.

Articles for publication or letters exclusively or the editorial department may be addressed o H. E. HILL,
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Editorial.

In the July American Bee-Keeper Mr. Davis took the writer to task for doubting the story of the bees sealing a snail to the floor of their hive with propolis. This was cited by Bevan as an example of the wisdom of bees. The fact of the bees so sealing a snail was not doubted, but that it was an evidence of wisdom or thought on the part of the bees was shown to be wrong, as the bees will so treat a pebble or any other object which they can not move.

A. C. M.

Manager York, of the Honey Producers' League, has recently had published in the Chicago Daily News an excellent article on the honey situation. It can not fail to result advantageously to producers of pure honey.

In this day of short crops and shorter prices, bee-keepers are alert for "short cuts" and kinks which tend to facilitate their work. In view of this fact, the said bee-keepers will doubtless be pleased to note that Editor Root finds an automobile a great advantage to one looking after an outapiary.

Mrs. Sarah A. Smith, of Grant, Fla., writes to have her copy of The Bee-Keeper changed to Brooklyn, N. Y., where she is going to undertake the sale of honey. Mrs. Smith, it may be remembered, is the one who advocated the theory that, "the way to raise the price of honey is to raise it." It is to be hoped that Mrs. Smith may be successful in materially increasing the market price of honey in Brooklyn.

Leslie Burr, in Gleanings, reports black mangrove in the swampy lands of Cuba, near the sea, and says that said "swampy lands" are the home of the "hungriest mosquitoes in the world." While this corroborates several other reports which we have received, that the black mangrove does grow in the West Indies, and in some places very extensively, it also proves Mr. Burr's ignorance of the mosquito question. Florida's horde of hungry mosquitoes have from time immemorial vigorously defended the world's championship belt in the fastness of its mangrove swamps, and no mere statement of an envious Cuban is likely to wrest from Uncle Sam's "skeets" their long-cherished trophy. Burr should spend a season in Florida swamps before he goes on record.

HUSTLING CALIFORNIA.

Mr. J. F. McIntyre, the noted apiarist of California, said in the June Review: "It is my opinion that a man can not run out apiaries and be as happy as he was when one apiary, one wife and two or three babies were all he had." Are we expected to infer from this that he adds a wife and set of babies with each apiary?

CANDIED HONEY.

The editor of the Rural Bee-Keeper asks: "What is the best method of getting candied honey out of barrels?" Remove the hoops and take the barrel off of the honey. Ask us an easier one.

SIBBALD'S CONTROLLED SWARMING.

The editor of the Review objects to our statement regarding the point in which the so-called Sibbald system of controlled swarming differs from others. With the usual systems of forced or controlled swarming part or all of the bees with the queen are put on the old stand and the brood with or without bees goes elsewhere, sometimes to be later reunited and sometimes not. With the Sibbald plan the bees and a queen cell go to the old stand, and the queen and brood to another, union following later. The two systems differ only in the use of a cell instead of the queen with the forced swarm. If this is not the kernel of the Sibbald system what is?

TOBACCO FOR QUEEN INTRODUCTION.

Mr. Hutchinson of the Review has again become a keeper of bees, and has recently rediscovered the value of tobacco smoke in introducing queens directly to the bees without the customary intermediate caging. Incidentally he wonders if he would not have had equally good results with some other kind of smoke. We can answer that question in the affirmative and restate as we have many times before that it is not the odor imparted to the queen or bees but their mutual condition of nerves. Tobacco smoke works more quickly than wood smoke, that is all, but tobacco smoke is one of the things the novice will do well to let alone as when unwisely used it can cause more trouble among the bees than anything we know of.

SOPHISM.

As a sample of redundant sophistry of much of the bee-literature of the day the following is a gem: "All observing apiarists know that, as the season for swarming draws on apace, and the colony is about to cast a swarm, the queen ceases her prolificness, so as to be able to fly and go with the swarm, so that, when swarming does occur, said queen is scarcely larger than a virgin. Nature has s ordained things for two reasons, th first of which is that the queen ca fly; for, if taken from the colony whe no such preparation has been made she can not fly at all, as she is s heavy with eggs. The second reaso is that the queen need not be damaged by an over-accumulation of egg before there is time for the bees t construct comb in the new home fo her to deposit her eggs in." Th cart is so far before the horse tha it will be difficult for the latter eve to catch up. We would suggest tha the author of the quoted paragrap make another guess.

VERY MUCH AWAKE.

In the Bee-keeping World department of the June issue Mr. Greine quoted from Kvieger, in Schl. Hols Bztg., "The bee-keepers of Hollan are asleep. Nothing is ever heard o them."

Editor J. C. Bosch, of the Maandschrift voor Bijenteelt, published a Beverwijk, Holland, writes that h feels confident that the bee-keepers o Holland are very much awake; tha they have a bee-keepers' associatio of 2,000 members, which is doing muc to advance apicultural interests i Holland, and asks for the expressio of a better opinion of his countr men.

The American Bee-Keeper was n responsible for the misleading stat ment, and regrets that it should hav given it additional publicity.

We are sure that the foregoing bi of real information in regard to Ho land bee-keeping will be of interes to our readers, and somewhat of surprise, as well

A BEAUTIFUL MAGAZINE.

One of the most beautiful example of the modern art of magazine making that has come to our notice, is th new monthly journal, "La Hacienda. published in the Spanish language, a Buffalo, N. Y., by La Hacienda Company, 1336 Prudential building. It i devoted exclusively to agricultural affairs in the tropics, and will be to ou Spanish-speaking neighbors to th southward, what Country Life i America is to the United States. It perfect typography, splendid illustrations, artistic make-up and instructiv text render its pages a veritable store house of delightful entertainment available to those who read "the language of love,"—Castillano. The subscription price is $2.50 gold, per annum.

TO EDUCATE THE PUBLIC.

Anything which may tend to enlighten the public in regard to any phase of the honey business, and particularly as to its advantages over many other commercial sweets for table use, is commendable.

As an initial step in this matter of education, the Honey Producers' League has published a circular to be distributed through the manufacturers of supplies, by enclosing them with each shipment of sections sent out. Producers are invited to make use of them in every way that may appear advantageous, and beneficial results are anticipated. The circular is as follows:

TO THE PURCHASERS OF THIS HONEY

The producer of this Comb Honey, and also the undersigned, guarantee that the product in these sections, or small frames, was all made by honey-bees.

There is no such thing as manufactured comb honey. It never was made, and never can be, newspaper and magazine articles to the contrary. If any one says there is such a thing as manufactured comb honey on the market, just tell that person that the National Bee-keepers' Association, an organization of over 2,000 members, through its General Manager, N. E. France, of Platteville, Wis., will pay $1,000 for proof of such machine-made combs filled with glucose or any other cheap syrup, and capped over by means of machinery without the aid of bees. Also, a corporation capitalized at $300,000, all paid in, has had for many years a standing offer of a like sum for the same so-called manufactured comb honey as described, and the offer is still good. In addition to this, the bee-expert, a life-long bee-keeper, now in the employ of the Department of Agriculture at Washington, has repeatedly, in government bulletins and in public addresses, denied the existence of any such product. For evidence of this fact, refer to the report of the Secretary of Agriculture for 1904, page 83; also to Farmers' Bulletin No. 59, for 1905, pages 32 and 34, also issued by the Department of Agriculture, entitled "Bee-keeping," by Frank Benton.

It may be well to state that the basis for these comb-honey canards is possibly due to the fact that the flavor of honey in one locality may be very different from that of another; that when one tastes of a honey quite different in color and flavor from that which he used to eat on the old farm, he concludes it is adulterated or manufactured, especially if it be of poor quality. As a matter of fact, the comb honey from California is just as different from the same article produced in the Central and Eastern States as the fruits of that State are different from those in New England. In the same way, the honey from Texas differs very widely from that produced in Ohio, or honey from Florida from that in Texas. Some honeys, like that from buckwheat, are very dark; others are not only dark but ill-flavored, and should never be sent to market, but be sold to the baker or fed back to bees for rearing young bees.

Two-thirds of the States in the Union have pure-food laws; and one may rest assured that, in all the States where such laws are in force, both honey in the comb and in the liquid condition, generally called "extracted," is and must be the genuine product of the hive.

The oft-repeated misstatements about adulterated honey and manufactured comb honey in the newspapers and magazines has made it necessary for The Honey Producers' League to put out this statement, for the reason that the general public has come to believe that a large part of the honey in the market is adulterated or manufactured. If the dealer will join with the bee-keepers in helping correct these monstrous lies, it will materially increase his sales of both comb and liquid honey.

THE HONEY PRODUCERS' LEAGUE.

GEORGE W. YORK, Manager,
Chicago, Ill.

N. B.—Do not store comb honey in a refrigerator, cold storage, or cellar. These are the very worst places you can put it. It should always be kept in the warmest and driest room you have. It is advisable to keep liquid or extracted honey in the same warm dry place.

ACCEPTED.

As an absurdity to equal Mr. Clark's sting-trowel theory, the following, by Mr. Doolittle, recently published in the American Bee Journal, is eminently satisfactory:

HOW BEES BUILD CELLS WITH EXACTNESS.

"The question is asked, 'How can so many insects, occupied at once on the edge of combs where it is dark, as in a bee-hive, concur in giving them the common curvature from one extremity to the other, as is found in the comb of the honey-bee?' It is supposed that this direct mathematical work is done by actual measurement, as each bee has a square or rule to measure by, in the shape of the antennae. All who have observed the antennae of the honey-bee know that there is a joint in each, out toward its end. In building worker-comb, which is five cells to the inch, this joint is closed like a jackknife, so that when the antennae thus closed are straightened out on each side of the head, the folded joints just touch the walls of the cell, and thus each bee is enabled to work in harmony with every other bee in the hive, and we have every cell of worker-comb as nearly exact as the average carpenter can make a duplicate of the work of another carpenter.

"In building drone-comb the antennae are straightened out fully straight, so that they touch the walls of the cells when fully extended at the extreme outside points, and by so doing larger cells are made, or those numbering four cells to the inch, which is the size of cells in drone-comb; and these are as uniform as to size as are those of the worker pattern. In this we see the wisdom of a kind Providence, which placed within the bee an instinctive capacity as great, according to its wants, as is the reasoning capacity in man."

WE BE BRETHREN.

As an index of the amicable spirit prevailing among the trade journals of beedom, the following extracts are presented. The American Bee-Keeper graciously acknowledges these courtesies and appreciates the fraternal feeling responsible therefor:

Arthur C. Miller has made his editorial bow in The American Bee-Keeper, as associate editor with Harry E. Hill, who, for more than seven year has occupied alone the tripod. M Miller is well known as a vigorou writer, and the editorial utteranc of The American Bee-Keeper, whic have been by no means of the insip order, are not likely to fall off in i terest because of the new associa hand at the helm.—American B Journal.

Arthur C. Miller, I am pleased announce, has consented to become o of the editors of the American Be Keeper. Mr. Miller has had a lot experience as a bee-keeper, especial that of an experimental, scientific kin has a good education, wields a faci pen, and he and Bro. Hill will certai ly make a "team." The American Be-Keeper is to be congratulated.—Be Keepers' Review.

The American Bee-Keeper has late added to its editorial staff, in the p sition of associate editor, Mr. Arth C. Miller. That journal was alread strong editorially; but its late acq sition will make it still stronger, Mr. Miller is an enthusiast on bee an old experienced bee-keeper and careful observer.—Gleanings in B Culture.

Editor Hill, of The American Be Keeper, has taken to himself a c league in the person of the celebrat Arthur C. Miller, of whom he says: "It is questionable if the world tod holds a more thorough and alert st dent of practical and scientific apic ture, or one who has the ability more clearly express his ideas in wri ing." Thus the "A.B.K." will be r by two able and famous men, workin in double harness. There will be som high stepping and record breaking Florida presently. See our "Clubbin List."—Irish Bee Journal.

We note that Arthur C. Miller now the associate editor of The Ame ican Bee-Keeper, published at Fo Pierce, Florida. Mr. Miller is an a thority on bees and bee-keeping, an we shall expect to see him do som splendid work in his new capacit The American Bee-Keeper is alread a splendid publication, and if there any chance for it, it will be mad still better. We congratulate th American Bee-Keeper on securing s valuable an addition to its staff. Ha y Hill, the editor, has worked hard or several years to build up that pa- er, and that he has made a success f his undertaking can not be question- d.—Western Bee Journal.

A WANTON WASTE.

The destruction of hives, frames, ombs and honey of colonies afflicted ith foul brood is a senseless and asteful practice. Combs and honey ay be melted down, the wax saved, nd the honey, after having an equal uantity of water added to it, boiled ard and fed back to the bees. Hives, ames and all utensils if dipped into boiling and strong solution of pot- sh will be cleaned and perfectly ster- ized. The only thing to be burned eing the refuse from the wax, or this ay be thrown into the hot potash olution after further use for that is one, and the whole turned into the oil.

After hives, frames, etc., have been leaned in the potash solution they hould be rinsed in clear or acidulated ater to remove the excess of potash.

We have repeatedly requested our eaders to send all subscriptions and usiness letters to our Falconer, N. . office, yet scarcely a day passes which we do not receive letters en- losing money, at the Florida office. gain, we beg to ask our readers will ot send orders for subscriptions to ort Pierce. The fact is, we have been o long asociated with the editorial epartment of The Bee-Keeper that e have no use for more money. Vhen you enclose a subscription, ad- ress it to The American Bee-Keeper, alconer, N. Y., and it will have rompt and careful attention.

Mr. W. S. Hart, the urbane apiarist nd orange grower of Hawks Park, la., who occasionally favors our col- mns with a contribution, starts this onth upon a tour of several months uration, through Europe, visiting Nor- ay, Sweden, Denmark, Germany, rance, England and Scotland. Mr. Iart spent a portion of last winter n Southern California, and but a hort time since visited places of in- erest in Switzerland. He is a Yankee" boy who early in life fore- aw the possibilities and advantages of he "Land of Flowers," and adopted it as his permanent home, and he is now enjoying the merited reward for a few years of intelligently applied industry.

It will, doubtless, interest our readers to learn that some of the noisiest as well as most ardent workers for the passage of foul brood laws have at the same time been quietly working for the position of inspector. If we would save ourselves a deal of trouble, annoyance and perhaps financial loss we will needs look sharply to the wood piles for the secreted colored gentleman. Eternal vigilance is the price of liberty in bee culture as elsewhere.

Must Have Been Cyprians.

One day last summer the bees of a correspondent were so excited and angry that no living being could approach the apiary. Well protected, the apiarist made an investigation and found that a miserable little vest left hanging to a bush was the cause of the tumult. Said vest was made of a kind of cloth somewhat hairy. It appears that a bee accidently alighted on the vest, got caught and tangled up in the hair, and of course, got mad and began to sting and buzz. Others, attracted by the racket, came and got caught also until finally the whole apiary was in an uproar.

Bees Capture a Car.

Wabash, Ind., June 17.—A big swarm of bees settled on the track of the Fort Wayne and Wabash Valley Traction company yesterday, and an eastbound interurban car swept along, scooping up the swarm and landing the bees in the vestibule. They fiercely attacked John Fulton, the motorman, who sought refuge in the interior of the car after closing the door. The bees continued to buzz about the vestibule until a rush of air through the vestibule put them to flight and Fulton returned to the controller.

Preparedness.

Begin the morning by saying to thyself, "I shall meet the busybody, the ungrateful, arrogant, deceitful, envious and unsocial. But I who have seen the nature of the good, that it is beautiful, and of the bad, that it is ugly, can be injured by none of them.—Marcus Aurelius.

Two Men.

Who waits for opportunity,
And. when it meets him, takes it,
Is not as good a man as he
Who doesn't wait, but makes it.
—Philadelphia Press.

Cutting a Queen Bee's Wing.

Dallas Lore Sharp describes a method of preventing bees from swarming, in the Country Calendar for May, the first issue of the new outdoor monthly published by the Review of Reviews Book Company.

Keep your queens clipped. Lay aside your sentiments, your fears of the Society for the Prevention of Cruelty to Animals, your ideas that it hurts her, your fears of killing her —and get your scissors. Seize her any way. She won't sting. Get her by one wing (if you can't do better) and, holding her gently against the frame, snip off one wing. This won't stop the swarming, but it will keep the bees from absconding, for the swarm won't go off without the queen while you are away. So you are often able to induce them to call off the strike and go back to work.

Clip your queens then, give the bees room, give them shade at the hottest hours if necessary, shake them if they show signs of swarming and keep the colonies strong.—Newspaper.

About Sweet Clover.

The Times occasionally hears mention of a plant which must resemble sweet clover as growing in the vicinity, and it would like further information. Sweet clover is a lucerne, not of very great value as compared with alfalfa for feed. It blooms profusely a bright yellow flower, and is one of the best honey yielders in the world. It is persistent, though not a perennial, seeding itself freely in the second year. It is a wonderful fertilizer, filling the soil about its roots with nitrogenous bacteria of the same kind as highly recommended by the Agricultural Department. In the northwest it is used to redeem barren spots of sand by being simply planted and allowed to stand three years, when the ground is plowed and found to be remarkably fertile for any kind of crop grown in that section, especially potatoes and sugar beets. If the plant is really to be found here, it should be widely spread. If not here, efforts shoul be made to introduce it. As a sourc of supply for bees alone it woul prove profitable.—Tampa Times.

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Author of "Corporate Management.

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THE RONALD PRESS COMPANY,
203 Broadway, New Yor

Honey and Beeswax Market.

Denver, June 17.—The supply of honey is larger than the c mand and some comb honey will be carried over. We quote o market today as follows: No. 1 white, $2.20 per 24-section cra No. 2 light amber, $2.00; No. 2, $1.75. Extracted, 6 1-2c to Beeswax, wanted at 26c.

Colorado Honey Producers' Association.
1440 Market St.

Buffalo, July 14.—We do not advise shipping until sm fruits are out of the market. The supply of new honey, as w as the demand, is light. We quote today: Fancy new, 14c 15c. Old honey, 6c to 12c. Beeswax, 28c to 30c.

Batterson & Co.

Kansas City, Mo., July 11.—There is but little new honey a riving as yet, as compared with last year. The supply is y limited, but the demand is good and we think it will increase. We quote our market as follows: Comb, $2.50 to $2.75 per case; Extracted, 4 1-2 to 6c. Beeswax, 28c.

C. C. Clemmons & Co.

Chicago, June 7.—The volume of sales are infinitesimal; hence prices are not considered to be important at this season. Comb brings 12c to 12 1-2c per pound for best grades, off lots at 7c to 10c; extracted 5c to 7c, according to what it is. Beeswax sells upon arrival at 30c per pound.

R. A. Burnett & Co.
199 So. Water St.

Cincinnati, July 10.—We sold today at our store new crop of fancy comb honey at 13 1-2c per pound. There is still a big stock of last season's honey on the market and is going begging at any price. Extracted honey is moving quite lively now. We are selling amber extracted honey in barrels at 5 1-4c to 6 1-2c, according to quality. White clover extracted, 7c to 8 1-2c. Beeswax, 26c.

The Fred W. Muth Co.
51 Walnut St.

Boston, May 9.—There is no change to note, in condition of honey market, from that of our letter of April 24.

Blake, Scott & Lee Co.

Sunshine is gaining admiration as a popular literary family *MAGAZINE.*

It entertains its readers with good short stories, sketches and poems by the most famous authors of the day and is a magazine of superior merit.

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I publish and recommend to you **THE RURAL BEE KEEPER**, the best all-round $1.00 monthly bee journal in America. On trial three months for this ad. with 25c. (Or send us 50c for a three months' trial and your name and address on a two-line rubber stamp (self-inking pad 25c extra.) Or

Send us $1.50 and get the Rural Bee Keeper one year

and an untested Italian queen bee. Sample copy free. Agents get liberal terms.

We count that day lost which does not show some improvement in **The Rural Bee Keeper.** So soon as we can find the right party to conduct the departments, we will establish a department for advanced bee keepers and a kindergarten for the new beginners. We also want to benefit our readers in the West and want to establish a "Department of the Middle West" and a "Pacific Coast Department." Our Foreign and Southern Departments are very gratifying to us.

We solicit your subscription and your moral support.

W. H. PUTNAM
RIVER FALLS, WISCONSIN

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H-Feb. tf

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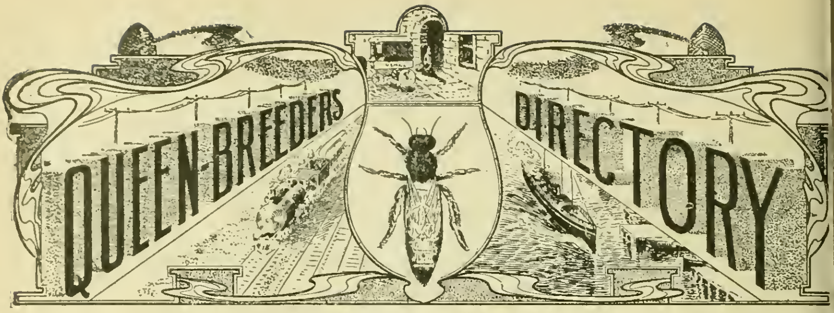

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QUEENS HERE. We are still asking you to give us your trade We sell Italians, Goldens and Carniolans at 75c for untested and $1.00 for tested. Prices on quantities and nuclei upon application. John W. Pharr, Berclair, Texas. Jan6

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HONEY QUEENS AND BEES for sale. I extracted 300 pounds per colony in 1903. Thos. Worthington, Leota, Miss. Aug. 5

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THE FRED W. MUTH CO., 51 Walnut S Cincinnati, Ohio. Standard Bred R Clover Three-banded Queens, Golden Italian and Carniolans. Safe arrival guaranteed. Ser for circular.

THE A. I. ROOT CO., MEDINA, OHI Breeders of Italian bees and queens.

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TALIAN AND Carniolian Queens. The Bankston Baby Nucleus and the Bankston nursery cage. Untested queens 50 cents each; tested 75 cents. Baby nucleus, nailed ready for use, 35 cents. Nursery cage, 35 cents by mail with printed instructions. C. B. Bankston, Milano, Milam County, Texas. Aug. 5.

NCREASE is a handsome little book telling how to form new colonies without breaking working stocks. A simple, sure satisfactory plan. 25c. Baby Nuclei tells how to mate many queens from sections with a mere handful of bees. 42 pages, 20 pictures; plain and simple plan. 50c. Queens and queen rearing outfits for sale. Golden ll-over and Caucasian Queens. Circulars ree. E. L. Pratt, Swarthmore, Pa.

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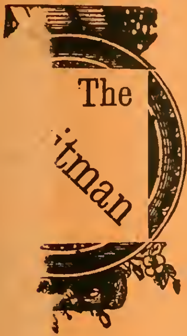

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Large lb. tin-top glass pail, No. 777, 1 bbl. of 150, $5.00.
Small lb. tin-top glass pail, No. 776, 1 bbl. of 200, $5.50.
1-lb. Oaken Bucket, tin top, with wire bale, 1 bbl. of 150, for $5.00.

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and rubber rings. We have no wax ring
right size to fit these jars. They are a
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SEPTEMBER

1905

VOL. XV

NO. 9

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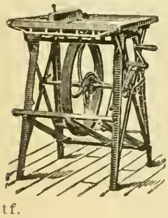

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1—5 tf. B. H. STANLEY, BEEVILLE, TEXAS.

Ahead of Shook-Swarmin

The March **Review** is now in process of preparation, and will be out about the middle of the month. One article in this issue will be by H. G. Sibbald of Canada, and he will describe a new system of management that promises to be away ahead of shook-swarming. It has these advantages: No shaking of the bees; no handling of the brood; no possibility of the queen being in the wrong hive; no danger of after-swarming; no increase unless desired (but easy to secure if wanted); no queen cells to hunt up and destroy; yet the whole force of bees may be kept together the whole season, and each colony may be requeened with a queen from a naturally built cell.

This is only a single article in one issue the **Review**, but it is a fair sample of wh you are losing if you don't read the **Revie** and of what you will gain if you read Send $1 for the **Review** for 1905; or if y prefer, you can send ten cents, and wh the March issue is out it will be sent you, and the ten cents may apply on a subscription sent in during the year.

W. Z. Hutchinson,

Flint, Mic

THE AMERICAN BEE-KEEPER

Vol. XV SEPTEMBER, 1905. No. 9

The Wood-Robin.

DISTANT in the wildwood
I hear the robins' song,
A wierd, re-echoing whirl of melody,
Whose notes the forest aisles prolong.

Distinct and mournfully,
Sole king of evening,
Thy cadences ring in my ears,
Recalling one who loved thy voice
Back in the vanished years.
That long and clarion strain,
Brimming with bygone lore,
Tells of a time when all our hearts
Were young in days of yore.
Dreams of an old-world bliss,
Fancies of brighter years
Breathe in thy luscious voice,
Flooding my eyes with tears.
With flute-like music
Thy voice floats through the vale,
Prophet of peaceful days when the tragic note
Shall fade from thy twilight tale.

Sing, bird of the wilderness!
Other ears may hear,
And in thy roundelay
Catch words of cheer.

RICHARD HERBERT GESNER.

SUGAR FEEDING.

EVILS RESULTING FROM THIS AND KINDRED PRACTICES.

By ARTHUR C. MILLER.

IN THE AUGUST BEE-KEEPER Mr. F. Greiner expresses surprise at learning that sugar is "being used largely in producing comb honey." I do not know that I put the matter in just those words which imply that the masses of bee-keepers deliberately supply sugar syrup for the purpose of having the bees put it in the sections. Such an implication would be unjust to the majority of bee-keepers. The point I have endeavored to emphasize is that much of the sugar syrup fed to bees gets into the surplus honey.

Those bee-keepers who practice stimulative feeding or who try to have the brood nest packed with syrup before the honey flow opens are sure to have more or less syrup in their surplus honey. Mr. Boardman has long practiced filling the brood chambers with syrup before the honey flow, "so that when the latter comes the honey will all go into the supers." He further states that before he adopted this practice his "crops of honey were very uncertain." In other words, so long as the sugar syrup is to be had the bees will put up a surplus. Mr. Boardman bears an excellent reputation and I do not believe for an instant that he feeds the syrup to have it put into the supers. But into supers more or less of it always goes under such conditions, and there can be bought in the open market to-day comb honey which is unmistakably largely sugar syrup. The Gleanings people in their zeal to push what seemed to them a good thing spread the Boardman doctrine far and wide and incidentally they make mention of sundry feeders which they manufacture and will permit the public to acquire for a modest consideration. Both Mr. Boardman and the Gleanings people deny that the syrup goes into the supers, but they cite no proof, it is just a comfortable belief.

That excellent authority, Mr. J.
Green, of Grand Junction, Colorad
says in Gleanings for August 1st.: '
great deal of the honey stored in t
super has first been stored in t
brood-combs, in many cases at leas
Gleanings' favorite authority, M
Doolittle, says that bees once start
in the sections, the honey stored
the combs below will be carried to t
sections as fast as the queen needs t
room for egg-laying, and further th
within fifteen days after the bees c
cupy the sections, the brood chamb
is packed with brood except for a l
tle pollen and honey in the extre
upper corners of the frames and t
sections are well filled with hon
Scores of such statements might
quoted if it were necessary, but it w
suffice to add reference to the we
known advice to extract just bef
the honey flow all dark honey fr
brood combs so the honey in the su
ers will not be discolored.

Regarding the practice of feedi
sugar to the bees at all, that sterli
and upright man Mr. L. C. Root,
Stamford, Ct., has said: "We are ter
ing more and more each year to t
practice of feeding honey only to o
bees, and I shall welcome the day wh
this will be the exclusive practice, th
avoiding the appearance, even, of a
possibility of fraud in the quality
our surplus honey" and "in this as
the use of comb foundation for box
I am disposed to take radical grou
and protest against anything th
gives the color of suspicion to o
products."

Twenty years ago he gave th
warning, but, save for now and the
faint protest, the practice of feedi
and the use of comb foundation in t
sections has been constantly a
steadily urged. Langstroth sa
"The prudent apiarian will always
gard the feeding of bees, except t
little given to them by way of e

couragement, as an evil to be submitted to, only when absolutely necessary, and will very much prefer to obtain his supplies from what Shakespeare has so beautifully termed the 'merry pillage' of the blooming fields, than from the neighboring grocery."

These far-sighted men saw the dangers and sounded the warning but it was unheeded, and to-day the bee-keepers of the land are suffering in consequence.

Just as long as bee-keepers feed sugar syrup to their bees they must expect to be accused of producing adulterated honey, and I am not sure that in states having a pure food law they would not be subject to criminal prosecution. It is folly for the Honey Producers' League to rail against the stories of adulterated comb honey so ong as their leading men publicly advocate feeding sugar syrup for any purpose except in cases where the bees are absolutely starving—an occurence exceedingly rare in most parts of the land if the bees are rationally reated.

The bee text-books and papers are ull of instructions on feeding and pages of the catalogues are devoted to descriptions of feeders. Comb foundation is universally talked of in bee literature and is called by the public artificial comb. It is folly for the League to assert that there is no such thing as artificial comb when there appears in good plain type in the "A B C of Bee culture"—a book published by a company of which the League's treasurer is an active member—the following: "Several ttempts were made to produce rtificial comb in the years gone by, but it was not until E. B. Weed, formerly of Detroit, now of Cleveland, went to work at the problem that anything like the real article was produced. His first samples had cell walls as delicate as the bees make them but the base was flat, and the bees did not take as kindly to them as their own product. And, moreover, it was soon discovered that they thickned the base making a comb that when eaten showed a perceptible midrib.

Mr. Weed finally set about making the same article with natural bases nd this he accomplished perfectly, indeed it was a marvel of skill and workmanship. This comb was nearly as delicate and as perfect as the natural production," etc.

Comb foundation in section honey is accountable for much of the distrust of its purity. The public know some such thing exists and when they cut through a tough strip along the top of the box or get their teeth into the tough substance they are not slow in thinking, "artificial product." It may be quite true that foundation can be made as thin or thinner than the base of natural comb, but it is not friable like that.

It will mean more or less of a revolution in methods of comb honey production to dispense with foundation, etc., and the big manufacturers of it may do some vigorous fighting against its abandoment for that purpose.

The objection to its use is no new thing but the leading papers have certainly not fostered the opposition. In plain English, the bee-keepers have had preached to them a lot of things which have been to their injury and they are now feeling the evil results of following the advice. Let us see if the purveyors of these harmful doctrines now have the courage to openly acknowledge their mistakes—if that is all they are, as we hope—and strive to correct the evils. It may cost them some prestige—which means money—and it may curtail the sale of some goods, but they cannot serve mankind and Mammon at the same time.

As to the honey producers, they must not only avoid evil but every appearance of evil if they expect the world to accept their goods as sterling.

Providence, R. I., Aug. 14, 1905.

A VETERAN APIARIST.

By J. W. Tefft.

Editor Bee-Keeper: I came here to visit my old friend, Mr. Albert Daken, from whom I bought my first bees, in 1855, and received my first instruction in bee-keeping.

Mr. Daken, at 73 years of age, still adheres to his resolution adopted when he began bee-keeping, to have nothing but the very best of everything about him, and I regard him as one of the most successful bee-keepers of our time. It was he who, in November, 1859, shipped the first bees to California, the shipment comprising 197 colonies, by the way of the isthmus, and of which but five colonies died en route.

The so-called Hoffman frame, as now manufactured for the market, is an exact reproduction of the Daken frame, as made by him in 1857, and if honor is due to anyone for having invented a frame with this self-spacing device, it surely belongs to Mr. Albert Daken of Tully, N. Y. I was out in Mr. Daken's bee-shop, looking over his interesting museum, and found a hive filled with brood frames that were made by Mr. Daken in 1857—five years before Mr. Hoffman came to America. I also found an L. hive of frames of the original Hoffman style made by Mr. D. fifty years ago. If you wish, I will send you samples of these old frames, made half a century ago by Mr. Daken.

Mr. Daken uses a frame 15 inches long by ten inches deep, and ten to the hive. He attributes much of his success to the use of a deep frame.

The white honey crop here this season has been a complete failure, basswood being the main source. Advices from my own apiary in western New York, however, report a good surplus.

Though 73 years of age, Mr. Daken has always lived here in his own home and has made bee-keeping his chief business, and he is as vigorous and enthusiastic as ever and now has about 200 colonies, all black bees, with a slight admixture of yellow blood.

About 15 years ago Mr. Daken sent a sample of his frame to a friend in southern Indiana, who saw that it was good and sent it to one of the leading manufacturers, and from this sample is now being made the Daken brood frame.

Tully, N. Y., Aug. 8, 1905.

CUTTING THE BEE TREE.

By Bessie L. Putnam.

IN OLDEN TIMES this was quite an important matter in the household. If the pioneer came by chance upon a tree in which the wild bees had stored their sweets he simply marked his initials upon the tree, which, according to the fireside laws then in force, gave him right to the honey; though if strictly conscientious he usually asked permission of the owner to cut the tree. This was as a rule readily given, for timber was in those days of comparatively little value and the bee tree was of course hollow to begin with, else it would never have become a bee tree.

And now, what is a bee tree? Simply a tree in which wild bees or those which have preferred a wild life to the new-fangled hives of their relatives have made their home. Those familiar with the habits of wild bees find it not difficult to locate these homes, and there is scarce a neighborhood in which some old resident ha not been an expert. Often the cutting of the tree forms a source of sport fo the boys of the neighborhood, the fun sometimes becoming more pointed than planned. While the plunder may prove sufficient to repay the trouble as a rule a small quantity of dark honey thoroughly impregnated with smoke is a result.

The history of a single tree may serve to illustrate the fact that it is sometimes cheaper to buy a first-clas article at first-class price than to try to gain something for nothing.

Mr. X. comes to Mr. Y on othe business and incidentally mention finding the bee-tree, asking at the sam time for his company at the cutting As the tree is represented as valueless the owner consents. More than this, he feels a sort of pity for the little householders, and having onc owned a few bees he suggests housing the victims in a comfortable home.

They seek the bee-tree, but to the surprise of both, it is not located on land of Mr. Y., but belongs in an adjoining field. X. volunteers to ask permission of another neighbor, with success. They work until past the noontide meal, and then come in wearied and hungry, their choicest offering being perhaps a pound of mos uninviting black honey. The comb i likewise too much discolored to promise any pay. No stings are the one source of gratulation. "Did you get the bees?" is the query of the homefolk. "We are not sure abou that," is the reply. After long and patient efforts to get them to ente the hive the object was seemingly accomplished, and they were left to their own sweet will for the day.

At even a neighbor drove a little out of his way to bring the information that the bees had swarmed by the roadside some rods from the scene of the robbery.

Once more were hive and sheet oaded up and a repetition of the previous work performed. The bees finally went into the new home and though no queen was visible it was hought that she was probably safe. Frames with some old honey were put nto the hive and the bees soon amused themselves by building a quantity of comb in the upper part of the hive. But it was too late to store anything or winter, and evidently they were a disorganized household. As a result, only ruin came. With the time spent Mr. Y. could have purchased a good warm of bees, to say nothing of the hard work entailed. Hunting bee rees, like "cooning," may pay in fun, on rare occasions, but as a matter of usiness, it most certainly does not.

Connautville, Pa.

A TRIO OF TOPICS.

By W. W. McNeal.

Removing Propolis from the Hands.

DID YOU EVER have trouble getting propolis off your hands? Bad job unless you know how, isn't it? Well life is too short to try to wash it off with soap and cold water. The kind we have here is the genuine nd no mistake about it. Dipping the ngers in hot water and immediately wiping them with a dry cloth is one very efficient way of removing it; but I like Fairbank's gold dust washing powder just as well, for with this one an use cold water which is often andier. After wetting the hands take about a half teaspoonful of the dry owder in them and rub it into a good ther; then rinse well and dry the ands.

Handy Way to Hold a Queen While Clipping.

You who have tried clipping the ings of queen bees know what an experating way they have of twisting themselves into a wrong position. I have clipped many queens without touching them at all save with the scissors, but like this way better: take a small stalk or spear of grass and bend it into a loop by holding both ends between the thumb and finger of the right hand. Now, as the queen runs away from you, place the loop of grass down over her and corral her. Usually, she will not hesitate to cross it at any point, and if you are quick about it, you can lift her off the comb as easily as eating pie and not hurt her one bit. When you have done this and she is hanging onto the loop, receive her with your left hand, allowing her to run up the index finger. Here is where you may need a little practice, but the plan is a good one and I know you will like it when you have learned the trick. As the queen crawls up the finger, gently slide the thumb up after her and seize her by two of her legs. In this way she cannot get into a position to hurt herself, or to interfere with the clipping of the wing. I assure you the method is a good one when you have learned how to use it. I like it so well that I now really enjoy the work of catching a queen and clipping her wing.

Bottling Extracted Honey.

Generally speaking, honey is not fit to be bottled for table use till the bees have capped it over in the combs. Prior to that, it is too much on the order of commercial syrups. When honey is left on the hive during the long, hot days of summer, it becomes so much improved in flavor and richness, as to be hardly recognizable with the same kind taken earlier in the season. Honey should always have the expression of bees and this characteristic mark of quality cannot be imparted to it in the brief time that modern methods allow for the ripening process. However, an upright tank, similar to a two-frame honey extractor, will aid quite materially in separating the ripe, thick honey from the thin and unripe when the crop has been harvested a little premature. The gearing should be removed and the can then set on a bench of some kind to raise it a foot or so off the floor. A good piece of muslin tied firmly over the top makes one of the very best kind of strainers and as a great quantity of honey can be poured in at the same time, this feature will be appreciated when straining honey of proper consistency.

I prefer to draw the honey cold from the tank into the bottles, placing them in a vessel of hot water about three dozen at a time. I set the pan on an ordinary gasoline stove and put in water enough to bring it well up around the neck of the bottles when the full number are in place. I do not put anything in the pan for the bottles to set on—just set them right down in the water with nothing between them and the blue flame beneath, but the bottom of the pan and what little water that works itself under the bottom of the jar. I do not remember of having broken but one jar in this way, and I consider it wholly unnecessary to provide a false bottom for the jars to set on. I leave them in the slightly boiling water about twenty-five or thirty minutes, when they are removed to a nearby table and another lot of jars takes their place. I seal the jars as quickly as possible, set them aside temporarily and then draw off another batch of honey from the tank. I do not label any till the honey has cooled, for the labels stick better when put on cold jars. In this way one can work quite rapidly and avoid the danger of impairing the color of honey by unduly heating it.

Wheelersburg, Ohio, August 7, 1905.

A CONVENIENT COLONY RECORD.

By F. W. Hunt.

EDITOR AMERICAN BEE-KEEPER: Having used a way of hive marking for several years, that I never saw in print, thought you would like to know of it, to add to your list of systems. I use the Danz hive and covers, and as the covers are in three parts, it allows me to divide the top, right side for the colony, center for the queen, and left side for honey conditions, so this gives me three signals for each.

Take the right side: a stone, shell, block or any handy thing placed near the front means "moth," "weak "watch closely," etc. If placed nea middle of right side, it signifie "small colony," "progressing," an near back of right side, means "larg colony," "liable to swarm," "needin room," etc. The middle is for quee record, so rock near front tells me "N queen;" on middle signifies th queen cell is capped and if near bac shows me that hive has a youn queen, not clipped.

Left third of hive refers to tl honey: as, near front means color has no honey and I must supply the with a frame or two soon, or fee them; but if on middle, its a bett sign, for that says, "they have plent for brood raising and present wants but if rock is near back of left side, know the extractor is the best remec for its crowded condition. Nothir on hive simply means "OK."

I go through the whole yard two three times a year and then put the signs on, and as the evils or bad co ditions are cured by future oper tions, the marks are thrown off, that most of the time hives are clear. I have had from seventy-five one hundred colonies for the la three years, yet have had but s swarms in that time. Dividin doubling clipped queens and secti honey is my way. Have created home demand for all the honey I c get here.

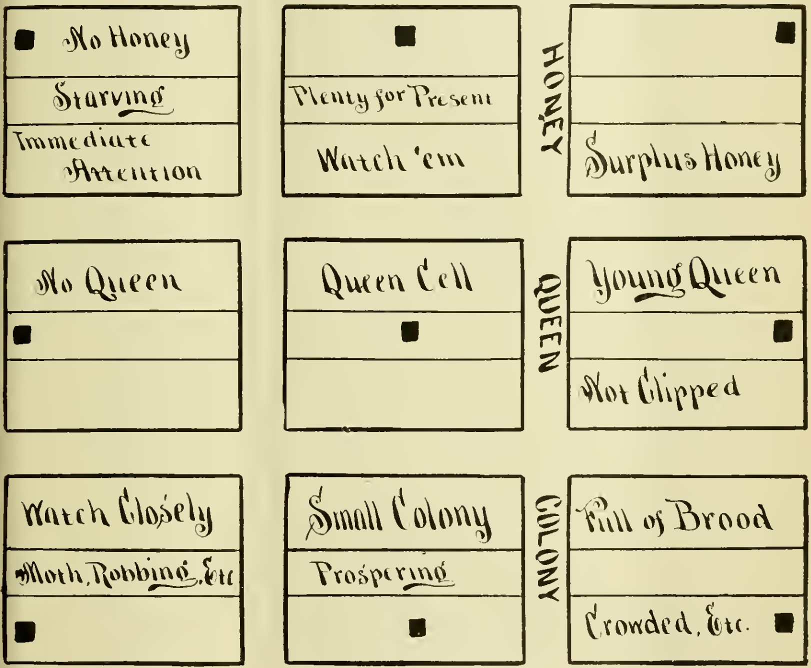
Key West, Florida, July 17, 1905.

WAX ADULTERATION SUSPECTED.

By J. E. Johnson.

I WAS ASTONISHED to see page 157 of last American Be Keeper a very strange stateme by Mr. F. Greiner, viz.: "Comb hon with artificial foundation as a ba should be branded as a fraud, unle the box be branded as comb built foundation."

My, My! and here I have been, f about twenty-two years, getting a vice through the bee journals that should use full sheets in section This has been advocated by nearly a our good knights of the smoker a bee veil; and our good old frien Doctor Miller, in whom there is n guile, very strongly recommends bot op and bottom starters, and I have iad a kind of "sneaking feeling" that I vas a little on the back number order ecause I use only starters or half heets. But if it is wrong to use full heets because of fraud, then if one sed only a little starter that would lso be wrong, though using full heets as per Doctor Miller's plan vould be deserving of capital punishment, while using starters, say one nch square, would entitle one to bout thirty days in jail.


No Honey
Starving
Immediate Attention
Plenty for Present
Watch 'em
HONEY
Surplus Honey
No Queen
Queen Cell
QUEEN
Young Queen
Not Clipped
Watch Closely
Moth, Robbing, Etc
Small Colony
Prospering
COLONY
Full of Brood
Crowded, Etc.

A CONVENIENT COLONY RECORD.

No, Friend Greiner, I surely don't gree with you, because wax foundation is not really an artificial production, but the pure bees' wax is merely oulded into convenient form. What ind of comb honey would we have vithout foundation?

I think starters are all right and full heets better, because you get your ections to weigh just about a pound nd more uniform. But let me tell ou where the harm is:

Two years ago I got ten pounds of ice, thin super foundation from one of the largest firms that make and handle bee supplies. It was almost white and even in the hottest weather it did not get soft. I am told that it has been bleached, and that when thus treated, it becomes whiter and harder, but I surely don't understand why bleaching should render it so that it requires more heat to melt it. I think it contains a pretty large per cent of paraffine, but I may be wrong. If not, then why do not all makers bleach their foundation? I find that the bees do not accept this white foundation as readily as that which has a yellowish color. Since that time I have been using it.

We are told that all foundation made in the United States is unadulterated and that no paraffine is used in foundation. Now, my fellow bee-keepers, why did Professor Wiley, who is chief in chemistry at Washington, give to the Rural New Yorker an article for publication last winter in which he stated that paraffine was used in making comb base?

Do you think he would make such a satement unless he had analyzed foundation and found such to be the case? If this was not a fact then why did not the prominent manufacturers make him take it back? No, they remained as silent as could be notwithstanding that Mr. Abbott challenged them to prove the accusation false. I ask you also, Why did Proffessor Allyn give out that he had analyzed comb honey as found upon the market and found it to contain paraffine wax? These statements being made by men high in authority are published throughout the land and are taken up and republished, not only in other papers, but in encyclopedias, and when we write articles in the papers denying these assertions, the editors and reporters think we are lying because when a professor says a thing is thus and thus it can't be any "thuser," and they find by turning to their cyclopedias that professor so and so is right. Now, fellow bee-keepers, are these men of high standing wrong, and are they doing us this great injury because they are a set ot ignoramuses, or are they right and are we being wronged because the manufacturer has become so eager for profits that he is not content with paying twenty-eight to thirty cents for wax and selling foundation for sixty-five cents per pound, we paying freight both ways, but must mix it with paraffine and thus do us this great injury? Comb honey built on full sheets of pure beeswax foundation is not one bit adulterated, but if paraffine is used in foundation, then it becomes an adulterated product and the law should interfere. If the statements made by these professors are false, what do you think of the idea that men who are chosen to high postions and draw a fine salary from the people and are supposed to be there working for our interests and then give out statements which do us more wrong than anything else can do; but not only so, but those statements go on record to be a continual injury for years to come? I am satisfied that this has done the honey market more injury than all else combined. Is it not time we seek to find who are the guilty ones, the manufacturers of comb foundation, or the men who are paid by us and working for us at these agricultural colleges? Let us hear from others on this matter.

Williamsfield, Ill., Aug. 6, 1905.

POLITICS IN THE APIARY.

By Henry E. Horn.

GOV. FOLK of Missouri, has vetoed the foulbrood bill passed by the Legislature of his state because of the unreasonable power with which it invested the foulbrood inspector. Gov. Folk deserves the thanks of the bee-keepers of Missouri for his conscientious act, though that is about the last thing he is getting from some of them. The bill appears to have been partially copied after the California law, and as the actual working-out of the latter is by some of our bee-men feared more than foulbrood itself, the wisdom of Folk's veto may become manifest.

According to the provisions of choosing inspectors "made and provided" by our law the board of supervisors of a given county are authorized to appoint either by petition or free choice any one they may deem fit to the office of inspector. There is no test necessary to prove fitness, no examination to show competency. The office carries a good salary, as do also the jobs of sub-inspectors, or deputies if each are appointed, as is usually the custom

After being thus legally appointed the inspector, or his deputy, has the power to enter any apiary and to make a lengthy examination of every colony of bees present, serving no notice of the impending invasion on the owner, nor leaving no report, nor word of any kind behind him after departure. To him, the owner simply does not count. It would be strange indeed if under such conditions—keeping in mind the well nigh terrific pressure of universal competition for jobs on the one hand, and on the other the political debts elected county officers usually owe to petty politicians, and which are regularly paid off with public jobs and snaps—results fearful rather than beneficial did not follow in the wake of the march of the law through the apiary.

There are apiaries after apiaries that have been thus inspected and re-inspected without the owner ever knowing a thing about it except—for the damage done. As every competent beeman knows there are times, dry seasons, sudden cessation of nectar flow, requiring operations, when to open a hive means damage. But our inspectors pay no attention to any such little things as that. Mr. Brown, of West Riverside told me one day last summer that he had three colonies robbed out just after the inspector had been at them. I myself lost two and if I had not happened along just in time—the bees crazy and hunting for a half a mile around for something to sting—I probably would have lost twenty. But the inspector had made his point, i. e. "put in" two or three days of his otherwise probably idle time, and gained a claim against the county—what does he care whether the simpleton of a bee-keeper likes this vandalism or not?

But here is a worse feature. As Preuss discovered and Cheshire proved, foulbrood is caused by an almost infinitely small vegetable, or plant, which, while in the seed, or spore state floats about in the air, readily attaching itself to anything with which it may happen to come in contact. Hence the opening of a hive of diseased bees, taking out the frames, setting the hive atmosphere in rapid motion through the instrumentality of a vigorously applied smoker, cannot but cause the neighborhood of that hive instantaneously to become thickly spore-infected in an ever widening circle. There is a chance that no harm may come from that to the rest of the hives but it's more likely that every one around will become spore invaded.

Should, however, all danger from that source pass happily by the further activity of the inspector is well calculated to give one the cold shivers. For, having shut up the first hive he goes, spore infested millionfold in clothes, skin, hair, breath, smoker, tools, to the second hive and industriously, though ignorantly sows and smears and glues bacillus alvei all through that, and then the next one, and so forth. And tomorrow he goes into a clean apiary, mayhaps, but if it remains clean thereafter the credit will have to be given to the bees, or their keeper—certainly not to the inspector for disinfect he his clothes, and person ever so thoroughly, bacillus alvei can stand several hours boiling in water, and our inspector cannot. Besides, how many are taking the pains, or are competent, to disinfect themselves properly.

Of course, though our foulbrood law would thus seem to bring about conditions diametrically opposite to those expected it may therefore not be without some virtue. The now for years rigorously conducted campaign of bee papers and supply houses to start everybody beekeeping, and to make everybody now keeping bees to "keep more bees" having logically brought on "the crisis" of a dull market for honey and low prices, the energetic sewing of foulbrood seed on the part of inspectors, and the consequent destruction of the thus infested colonies may reduce the number of them again to a normal level, and thus, also the supply of honey.—Orchard and Farm.

STARTLING, IF TRUE.

"It is a fact that ceresin foundation is sold in Europe," says the Editor of Gleanings. "The reason why paraffin and ceresin foundation can be sold across the water and not in America is due to the difference in climate." Hold hard, Mr. Root! You have been over-hasty in trusting to Mr. Hasty, who is here not a "reliable" guide. Your deduction is wrong, because your "foundation" is wrong. Like the ceresin foundation in any hive, it falls, owing to its not being genuine. Here in Great Britain our manufacturers are above suspicion, and would not adulterate, I believe, for all the trifling gain. But there would be no gain, only loss, because with the splendid foundation we can get, bee-keepers would never give a repeat order to any house selling such vile stuff. I have said adulterated foundation would break down in any hive, and I might add in any clime. The temperature of the hive interior is such during our warm summers that nothing but the genuine article will bear the strain imposed on it.—British Bee-Keeper's Record.

CALIFORNIA HONEY PRODUCERS.

The California National Honey Producers' Association, has sent out a circular to its members containing some matters of interest to the honey producers of California. The association represents about 25,000 colonies of bees or about one-fourth of the bees in the seven southern counties of the state. Southern California is reported as having about one-third of a crop, with prospects for a fair crop in the central part of the state. Colorado will have about 60 per cent of a crop while Arizona will have the lightest in years.

The association has not fixed an arbitrary price on honey, but its members are advised to hold their crop for the following prices: White 5 cents, light amber 4 3-4 cents, amber 4 cents. Arrangements can be made for storage in Los Angeles for $2 per ton per year for extracted with 50 per cent additional for comb honey, and there insured for $100 per ton at a yearly rate of 50 cents. The estimated crop for southern California based upon the reports received and the number of cases and cans sold is placed at 125 cars of 20 tons each.—Orchard and Farm.

PROFITABLE SEASON IN IRELAND.

After three successive years of misfortune, it is most gratifying to receive reports of success from every part of the country, and also from England and Scotland. During the time of adversity many were asked: "Is there money in bees?" and many replied by giving up the industry altogether. Faint-hearted and impatient, they had not the pluck which perseveres and welcomes difficulties for the joy of overcoming them. The hopeful and determined kept on doggedly, waiting for a favorable season, and confident that there is "money in bees" when skies are blue, and fields are bathed in sunshine.

June and July brought us the weather required for the secretion of nectar, and for its gathering by the eager little workers and now the delighted owners are complaining that the books, in suggesting a possible profit of £2 per stock in a normal season, have misrepresented the case. We hear of 168lbs of section honey per stock from counties wide apart, while some experienced bee-keepers are counting upon 200lbs. of surplus honey per stock. With 200lbs. the net profit should be well over £3, or from 100 per cent. to 150 per cent. upon the capital involved, and we shall have to reckon 1905 as above the normal—a season to be remembered for the splendid work accomplished by the bees.

It is worth noting that, judging from the reports to hand, the best results have been obtained by Italians, and, of course, by stocks which had young queens. Swarming has been very general, in spite of all precautions, but where the swarms were rightly managed, the owners have both increased their stocks and secured a good return of honey.

Marketing will now demand careful attention. It may be assumed that, with honey so plentiful, prices will drop, and only the article that is excellent, and that is properly prepared for the buyer, will sell to the best advantage.—Irish Bee Journal.

A Mr. Thomas I. Weston, of Hook Hampshire, Engand, under date Apri 18th, 1905, in the American Bee-Keeper, makes a violent attack upor the Irish Bee-keepers' Association which he describes as "split up by internal quarrels." One wonders what has the I.B.K.A. done to Mr. Thomas I. Weston of Hook, Hampshire, England, that he should go so far afield to malign the Irish Association. There is no justification whatever for the assertion that the I.B.K.A. is split up by internal quarrels, nor, in fact, that it has any quarrels at all, internal or otherwise, and when we have said this we have taken more than sufficient notice of Mr. Thomas I. Weston and his misrepresentations.—Irish Bee Journal.

Why should we faint and fear to live
alone,
Since all alone, so Heaven has will-
ed, we die,
Nor even the tenderest heart, and
next our own,
Knows half the reasons why we
smile and sigh. (J. Keble.

THE
Bee-Keeping World

Staff Contributors: F. GREINER and ADRIAN GETAZ.

Contributions to this Department are solicited from all quarters of the earth.

GERMANY.

GENERAL ADVICE.

The prospects for honey are very discouraging, says Guenther in Ill. Bztg., and continues: In localities with no fall honey season, July is the closing month and to increase during this month is not to be recommended. It is best to adopt some measure to keep the bees from breeding as brood-rearing costs lots of honey and the bees reared are of no value. In the heath and in buckwheat localities breeding is to be encouraged.

July is the time to renew queens Do not wait till August, as the young queens will not get to laying early enough to rear enough young bees for the winter. Late reared queens do not mate readily.

Every bee-keeper should keep some queens on hand for an emergency. The forming of nuclei is an easy matter. Two brood-combs with bees and a queen-cell from a colony, that has been queenless for ten days makes a satisfactory nucleus. Add to it a honey and pollen comb and an empty one. Such a nucleus, when queen has begun to lay, may be united with the colony having an old queen, after removing the latter.

Keep close watch of such colonies as have swarmed. See to it that their queens have not been lost.

Drone-breeders are to be treated as follows: Brush the bees on the ground a little ways from their hive and transfer a nucleus colony with queen to the same, close entrance for a half hour to give nucleus colony time to become settled. Then open entrance again. The brushed bees will quietly and gradually join the nucleus and all will be well.

The safest way to handle foul-broody colonies is to destroy them. Disinfect tools, hands and clothing.

A sad story about foul-brood told by Anmann in Illustr. Bztg.: Bee-keeper Ulrich, of Schweinitz, was called on to hive a swarm of bees for a neighbor. He did so and also looked up the hive the swarm had come from. He found the hive to be very badly affected with foul-brood, and the swarm a deserter. The hive was destroyed by fire, the bees hived into a clean hive. They developed foul-brood later and again left the hive entering in part three hives of Anmann. In consequence, foul-brood developed in Anmann's yard. Half of his 30 colonies died with it that year and the rest, the next year.

The Columbus comb foundation made of iron, coated with wax, is again talked about in German journals. It is recommended both for brood-chambers and for extracting combs. Otto Schulz is the manufacturer.

Swarms are more apt to abscond when hived on sets of combs than when an empty hive is given, says Editor Freudenstein, in Neue Bztg.

Ludwig says in Deutsche Bzcht.: "In dealing with a friend always have a cash deal, otherwise you may lose your money, or the friend, possibly both."

The same writer considers it a good practice for such bee-keepers as have only an early honey-flow to purchase heath bees in the fall. With them strengthen each colony to the amount of one pound. These bees, he says, are reared during the late honey-flow and are vigorous. They give a colony an impetus which manifests itself in greater activity of workers and queen. These bees can usually be bought at 50 cents per pound; they would have been brimstoned if not sold. Bee-keepers, who have only an early honey flow, sell bees at the close of their honey season to the heath bee-keepers, sometimes at 62½ cents per pound, and Ludwig says, at that price the heath bee-keepers do well out of it. They use these bees for storing honey, and later when their season is over they sell them back again.

There is a movement on foot to unite the different bee-keepers' societies into one great society.—Bzcht.

To avoid stings and to keep the bees in an amiable condition, Wurth gives the following good advice in Die Biene: Never stand in front of a hive or in the way of the flying bees; perform all operations quietly and without haste; do not approach the bees when sweaty; select a time to work with bees when the weather is fair and the bees freely at work; use smoke moderately, but always use it. Wear a light bee-veil but no gloves; have clean hands; brush no bees; when stung brush away the bee and remove the sting; do not breathe on the bee; especially vicious colonies feed before and after any operation. When these rules are followed and a colony can not be controlled easily supplant the queen with a better one."

Dickel is opposed to any foul-brood law. He claims that it is impossible to enforce any such law.

To keep down grass in bee yards and walks, Centralblatt says that the residue of calcium carbide will do it. Where acetylene gas is made, this substance accumulates in large quantities and, as it has no value, may be easily obtained.

The writer has sent honey to Germany a few times to private friends. Their verdict was that the honey produced in Germany is of better flavor and aroma than the American honey.

SUMATRA.

The hunting of bees or rather the taking possession of the combs of the big bee is a profession among the natives of the island. The secret of how to avoid stings and conquer the bees is carefully guarded by certain families and communicated from father to son. It would seem a most dangerous piece of business to climb a tall tree with a smooth, limbless body a hundred feet high. But it is accomplished without a ladder, only a piece of rope reaching around the tree and some wooden pegs are brought into requisition.—Leipz. Bztg.

FRANCE.

FORMIC ACID IN HONEY.

Concerning the theory advanced long ago by Mullendorf that the formic acid of honey is deposited in the cells by the bees stinging through the cappings, the analysis and experiments of von Planta are recalled. The amount of formic acid deposited, or rather ejected, when a bee stings is about 200 times greater than what is found in one cell of honey. Sugar syrup, suspended in a wire cage placed in a strong colony acquired a distinct taste of formic acid but far less than the honey found in the cells. Sugar syrup fed to a colony of young bees that did not fly for eight days, was found to contain, when capped, as much formic acid as sealed honey.

LARGE AND SMALL HIVES.

J. B. Chardin, in experimenting with different sizes of hives, says that small hives are undesirable on account of excessive swarming and subsequent starvation, very large ones, objectionable from the large amount of brood reared, which consumes the little amount gathered. Medium brood nests with sufficient surplus room gave the best results. The year in which these experiments were made was a very poor one in his locality. In a good season, larger hives would likely have been the best.

(It may be observed that the European apiarists use larger brood nests than we do. We would probably call a large hive what they consider only medium.)

HONEY VS. LUMBER.

A correspondent calculates that a linden tree produces during its lifetime $70 worth of honey and $10 worth of lumber.

BEES IN THE HOME.

Mr. A. Filet transferred a colony from a house to his apiary. He could not secure all the brood and bees. The space occupied by the colony was about six cubic feet between the chimney and a cupboard. The space was nearly full of combs, the largest being four feet and seven inches. They were about a foot wide, this being the width of the cavity.—Revue Internationale.

NAPHTALINE AND FOUL-BROOD.

Francois Coquet keeps naphtaline constantly in his hives and has so far escaped foul-brood, though it has nearly destroyed most of the apiaries in his neighborhood.—La Revue Internationale.

FEEDING OUT OF DOORS.

Mr. Hantor Beck has practiced out-of-doors feeding for several years with success. He simply uncaps the combs of honey to be fed, puts them near the hives and spreads them over the yard when they are covered with bees. When too many bees are on one comb, he shakes them off and moves the comb to some distance. He does not begin until one and a half or two hours before sun down. When nearly dark, empty dry combs are put down in the place of the honey combs not yet empty and there stored away till next day. Only once robbing took place, but was immediately stopped with carbolic acid. He thinks a quarter of a pound thus fed does more good than a pound given inside, so far as brood rearing concerned. Stimulative feeding in the pring should not be begun before some ollen or honey is brought in.

DYSENTERY.

Mr. H. Freudenstein cures dysentery by iving the bees warm sugar syrup. It will, e says, cure them even without a cleansing ight. If the weather is cold, the feed must e quite close to the cluster, in order to enble the bees to take it.

YOUNG VS. OLD BEES.

Mr. Mulot contends that old bees are as ood or even better than young ones for intering purposes. He says that the old es which wear themselves out raising brood te in the fall could have done as good serce in the spring as the young bees themlves and at less expense. (There are old es and old bees. What Mr. Mulot has in ew is the result of quite late breeding. he majority of the European bee-keepers imulate brood rearing in the fall as much d as late as possible in order to have strong lonies of young bees in the spring.)

FEEDING LARVAE.

An item is reproduced from a German per saying that the larvae of the bee are ntinually moving after their food, completg the circuit every two hours, approxiately. Every time a turn is completed, ey receive a fresh supply of food. How e observer found it out not stated.

WINTERING.

Mr. Baffert found that bees winter just well if empty combs or empty space is in e hive as when the bees are confined in a aller space by dummies. (The winters of ance are milder than ours.)—L'Apiculteur.

SMOKER WITHOUT SMOKE.

Instead of fuel and fire, put in the smoker sponge wetted with an apifuge composed Spanish fly pulverized and dissolved in rbolic acid. The combination is diluted th enough water to make a rather weak ixture.—Le Progress Apicole.

CLEANING COMBS.

A German paper is quoted as giving the llowing for making bees clean the xacted combs without robbing: Carry a rong colony into an enclosure without osed windows, such as a stable. Put side it an empty hive, with only the ennce open. The combs to be cleaned are aced in this hive, successively and the es of the colony are shown the way to, d do the cleaning. If necessary the ed combs in the colony can be exchanged empty ones, or even foundation.

TO PREVENT SWARMING.

One summer, Mr. Pincot happened to be sick at the time when he ought to have put the supers on his colonies, says L'Apiculteur. When he got well, some of his colonies had swarmed and a number of others had queen cells sealed. Over each of these he put a second story, into which were raised three frames of brood from below, the remaining space of the upper story was filled with empty combs and three frames of foundation took the place of the brood combs moved above. None of the colonies thus treated swarmed. He does not say whether the queen cells were destroyed or not.

TESTING WAX.

A general method of testing the purity of wax is given by Mr. Armand Gaille, chemist at Coneise, Switzerland Three trials are to be made in the following order:

1. Specific weight. A small piece of beeswax known as pure is made into a ball and then put in a mixture of alcohol and water. About one-third alcohol and two-thirds water. Then water is added carefully until the wax barely floats and when pushed down comes up very slowly. A similar piece of the suspected wax is then tried in the same way and if pure should behave in the same way. In making the balls, care should be taken that no air remains inside, and that when in the mixture, their surfaces should be well wetted. This is not enough for the adulterant might have added something lighter and also something heavier so as to bring the average about right.

2. A small piece of wax is placed in a glass with some essence of turpentine of first quality and purity. The glass is then heated on a small alcohol lamp until the wax is dissolved. If the solution is muddy or not complete, the wax is not pure, as the turpentine dissolves the wax completely.

3. Another piece of the wax to be tried is then placed in a glass with some concentrated pure alcohol and heated until the wax is dissolved. The glass is then set aside to cool for at least half an hour. The liquid is filtered and added to about the same volume of distilled or rain water. A small piece of tournesol paper blued by a little ammonia is then added. The whole is shaken together. After a quarter of an hour the paper should have remained blue. If it becomes red the wax is adulterated. If the color has not changed, the liquid should be filtered, and after filtration the liquid must be clear. The wax that will stand these three tests can be considered as pure as all the known possible adulterations would be revealed either by one or the other.—Le Revue Internationale.

A POINT OF LAW.

On June 1, 1905, a swarm came forth from one of Mr. B.'s colonies and settled in the enclosed garden of a neighbor. Mr. B. had seen the swarm come out, followed it and saw it settle in Mr. X.'s garden. He came in the house and asked permission to take it. Mr. X squarely refused the desired permission. Mr. B. instituted suit. The French Code on the subject reads thus: "The owner of a swarm has the right to claim it and take it wherever it settles, provided he has followed it, otherwise it belongs to the owner of the land where it settles." The court decided that the right to claim and take the swarm carried with it the right to enter the property through which it passes and where it settles, with of course, the liability to pay any damage that might be done the property during the operation. That point should be noted. Similar cases mig arise here as well.

DYSENTERY.

A correspondent who signs his nar "Le Bourdon," in a careful examination dysentery in bees, distinguishes three classe One seldom very dangerous is characteriz by the excretion being yellow. This shou rather be called diarrhea. A much mc serious kind exists when the excretions a dark, rather thick and of very repulsi odor. That disease always results in considerable mortality and is undoubted real dysentery.

The third is a constipation, but t symptoms described are so much like t paralysis that he has probably taken t paralysis for constipation.—La Rev Eclectique.

CALL FOR NOMINATIONS.

Platteville, Wis., Aug. 22, 1905.

Nominations for candidates for officers to be elected next November by the National Bee-Keepers' Association. The following terms of office expire January 1, 1906: President, J. U. Harris; Vice-President, C. P. Dadant; Secretary, W. Z. Hutchinson; General Manager and Treasurer, N. E. France; Directors, J. M. Hambaugh, C. A. Hatch and Dr. C. C. Miller.

All members are requested to send me, by mail, by September 20, their nominations for above officers. The two receiving the highest number of votes for each office will be considered candidates to be voted for at the November election of officers.

N. E. FRANCE, Gen. Manager.

Williamsfield, Ill., Aug. 5, 1905.

Editor Bee-Keeper:

There were good indications for a honey crop early in the season, but cool weather and very cool nights prevented the bees from building comb. Nearly all comb honey here will be of an inferior grade and only about a half crop at that, all of which will be sold at home, I think. Smartweed is not abundant but will, I think, insure winter stores; but hardly any fall surplus. Second crop red clover is blooming nicely and bees are at work on it to the extent of a good living.

J. E. Johnson.

In too many cases a sanguine disposition is merely—a disposition to ignore probabilities.—Puck.

SCRAPS OF HISTORY.

Transferring of larvae for que rearing was practiced by Dr. Da hoff prior to 1860. Huber was t the originator.

Direct introduction of queens w practiced by Huber, and exploited l Hubler in 1866. Confining bees f queen introduction was also demo strated by the latter bee-master that time.

Look to your hive covers now, a see that they are water tight. Bett give them a fresh coat of paint.

Don't! don't! don't!!! put any po honey on the market. Feed it ba to the bees now and let them ne spring turn it into bees which w secure you a crop of white honey.

Dark honey is not always po honey, but generally it is of very pr nounced flavor and hence not enjoye by many. Keep it for trade wi those who you know like it and unde stand it or save it for feeding whe that is necessary.

Naples, N. Y., Aug. 1, 1905.

Editor Bee-Keeper:

The honey harvest has been belo the average. We have but about pounds per colony—one-third extrac ed and two-thirds comb. Have in creased enough to make good wint losses. We expect some honey fro buckwheat.

F. Greiner.

THE

merican Bee=Keeper

PUBLISHED MONTHLY.
HE W. T. FALCONER MFG. CO.
Proprietors.

JBLISHING OFFICE, - - - Fort Pierce Fla.
OME OFFICE. - - - - - - Falconer, N. Y.

ARRY E. HILL, - - - - - - - *Editor*
THUR C. MILLER, - *Associate Editor*

TERMS:

Fifty cents a year in advance; 2 copies 85 nts; 3 copies $1.20; all to be sent to one stoffice.

Postage prepaid in the United States and nada; 10 cents extra to all countries in the stal union, and 20 cents extra to all other untries.

ADVERTISING RATES:

Fifteen cents per line, 9 words; $2.00 per ch. Five per cent discount for two inser- ns; seven per cent for three insertions; enty per cent for twelve insertions.

Matters relating in any way to business ould invariably be addressed to

THE AMERICAN BEE-KEEPER,
Falconer, N. Y.

Articles for publication or letters exclusive- for the editorial department may be ad- essed to **H. E. HILL,**
Fort Pierce, Fla.

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A red wrapper on your paper indicates at you owe for your subscription. Please ve the mattter your early attention.

Editorial.

Try to finish before the end of this onth all work which necessitates sturbing brood-nest or opening the ves so that the bees may have a ance to give the final touch to their rangements before the cold stops eir labors.

The Bee-Keeper inaugurated the actice of having a selected poem in ch issue, of scattering quotations, overbs, etc., through its pages and giving the valuable bits of news of e bee-keeping world. Other papers e now following our lead. Thank u gentlemen for the compliment.

We wish to urge all bee-keepers who possibly can attend the next meeting of the National Association to be held at San Antonio, Texas, to do so even at some inconvenience and cost to themselves. Matters of great importance are to be considered so be sure to go. We shall have something more to say about this next month.

See to it that your bees have more than what you think are enough stores to carry them through the winter. A good colony will consume much more food from the time of the first flight until the spring honey flow, than through the cold months. A full larder means a big colony, other things being equal and it means it without any fussing with feeding and its accompanying danger—danger to the bees and your reputation.

In treating of wax-rendering a writer in the Australasian Bee-Keeper says that he finds the instructions against boiling the mass of combs and water to be useless, and that just as nice wax will be secured by boiling as by avoiding it. His deductions are right, but will be misleading if the quality of the water used is not considered. Water that is considerably alkaline will seriously effect wax that is boiled with it, but if the water is neutral or slightly acid no harm will ensue.

For the benefit of veteran as well as novice we wish to call attention at this time to three factors essential to the successful wintering of bees. They are: First: An abundance of young bees, hence do not unite a lot of old bees from nuclei and expect to carry the resulting colony through to next spring. Second: A vigorous queen, for without this the strongest colony will dwindle before they can rear a new queen. Third: An abundance of sound stores. This does not mean a few combs of honey tucked in at the last minute, nor a lot or syrup fed after all hopes of stores from the fields have gone. It means well ripened honey, placed by the bees where their instincts direct and hence available as needed.

REMOVING PROPOLIS.

The ado over the removal of propolis from hands or utensils suggests that more or less persons regard it as some strange and peculiar substance. Treat it as any pitch or gum is treated and it yields readily. Rub on a little grease or oil and follow with soap in warm water. A strong solution of an alkali such as washing soda, potash or ammonia will remove it as will also alcohol, naptha, gasolene or kerosene. With one or another of these substances it can be removed from most any article without damage thereto.

ABOLISH THE FEEDING PRACTICE.

In reviewing the report of the last meeting of the N. B. K. A. attention was arrested by comments on the feeding of sugar for producing honey. Some earnest men in their efforts to show that the possibilities were overdrawn compared the prices of sugar and of honey, saying that with sugar at six cents and honey at five cents obviously there could be no profit to induce the practice. In their zeal they quite overlooked the fact that the six cents' worth of sugar makes three pounds of feeding syrup and two pounds when stored and thickened. Sixty-six per cent gross profit is quite a temptation to a good many men, and when a three-cent-per-pound stored syrup can be sold for fifteen cents there is temptation enough to warrant a lot of strong preaching against the feeding of any syrup for any purpose except prevention of absolute starvation.

WHO WAS RIGHT?

An early writer said "If bees are obliged to live entirely upon honey after having exhausted their stock of pollen. they are in general attacked with dysentery, and the best method of curing them is to place some combs in their hive, the cells of which are filled with pollen.

A later author said: "Colonies which have no stores of pollen or are only meagerly supplied therewith will not be injured but rather benefited by being placed during winter in a dark depository with a moderate temperature. On the contrary colonies well supplied with pollen will be brought to the verge of ruin by being placed i such a depository with the temperature considerably above the freezin point." Who was right?

We have good reason to believe tha a high death rate, with or withou dysentery is due to the efforts of th bees to keep their cluster temperatur normal by the consumption of store deficient in heat producing element namely, the sugars. When bees hav the time and the population to properly treat and thicken fall honey it i quite as good as any other as a winte food and much safer than sugar syru fed late, as the latter often crystallize

ODOR THEORY AGAIN.

The editor of the Review commenting on our remarks on the odor fact in queen introduction and in unitin bees, cites the following strong ev dence of the fallacy of the odor th ory: "In making up colonies I usuall take combs, with the adhering bee from about three different colonie put them all together in a new hiv and give them a queen. Such coloni defend themselves from intruder from the very first." It would seem a though the different 'scent' would b so badly mixed up as to be of litt value. Further on reference is ma to the odor left by a queen on objec she has been in contact with as show by the ways bees run over and examin such objects. It is probably from th that the odor theory first arose, bu the fact was overlooked that an bees pay the same attention to suc objects regardless of what queen le the odor, or whether the bees we queenless or not. It is difficult to understand just the nature of the quee odor which thus attracts any worke bee, because a fertile queen bee diffe so greatly from higher orders of an mal life with which we are familia A virgin queen does not leave an inciting odor, neither does a dron Possibly a laying queen generates a odor peculiar to her condition an analogous to that of higher animals a the mating period. Certainly a fertil queen which is not developing eggs—during periods of quiescence—attract far less attention from the worker while a virgin receives little if any a all. In studying the subject of odo it is quite important that the studen eep clearly in mind the distinction etween sex odor and colony odor, ssuming that the latter may differ in ifferent colonies.

In connection with this subject it hould be noticed that drones pay not he slightest attention to a queen ither virgin or fertile or in any way ndicate that they are aware of their resence. Also that a queen who has ad her wings slightly trimmed rarely nates even though able to fly fairly ell. This tends to cast doubt on Mr. heshire's deductions as to the funcons of certain organs on the ntennae of drones to which he attriuted the sense of smell, but which are nore probably auditory organs.

WAX ADULTERATION.

In this issue of The Bee-Keeper Ir. J. E. Johnson presents a rather rious accusation against the manuacturers of comb foundation, which hough materially modified in the inoductory paragraph, warms up to an xtent that leaves no necessity for uessing as to his premises in the natter; nor does he attempt to disuise the intent to convince users f foundation that manufacturers, rompted by the most vicious motives, re defrauding their patrons, and hinks it is time that an investigation e instituted. In his manuscript, owever, Mr. Johnson takes occasion o speak in the most flattering terms f the foundation turned out by one articular manufacturer. This refernce has been omitted, as The Bee-eeper devotes no space in its readng columns to advertising any manuacturer's line of goods, and because f its reflecting upon the integrity of ll other manufacturers, without an tom of conclusive proof as a basis for he insinuation, whether just or unıst.

It is quite within the scope of the ational Bee-Keepers' Association to roceed formally to investigate the harge of adulteration, and The Bee-eeper has no doubt that any and all f the large manufacturers will glady assist the movement in any way hat the Association may be pleased o indicate.

To publicly charge gross avarice, raud and robbery against the manucturers of supplies, the editor of The Bee-Keeper believes to be quite unfounded and exceedingly unjust; and, with his present knowledge of the affairs of some of the largest manufacturers and their moral standing among men, he does not hesitate to assert that the whole offense is, in his opinion, confined to the suspicious mind of the accuser.

It should be borne in mind that manufacturers of comb foundation have to depend for their supply of wax, upon bee-keepers, and that the source of supply is as scattered and diversified as are the bee-keepers themselves, and that, while exerting every possible effort to exclude every piece of wax which shows traces of adulteration, in handling hundreds of tons of wax, coming to them in all manner of shapes and in tens of thousands of separate pieces, it is beyond the pale of human ability to know that absolutely pure wax only has entered into their product; but that they endeavor to have it so, the editor of The Bee-Keeper has good reason to believe.

Every writer, and every public speaker, in common with humanity in general, has his failings and shortcomings. Mr. Johnson's dominant weakness, judging from his writings, is the implicit faith with which he appears to regard every statement emanating from a "professor." The citation of Chief Chemist Wiley in such matters is eminently calculated to excite ridicule, for this same gentleman, who stands upon the very apex of authority, and constitutes its foundation as well, is the very same "professor" whose loose manner of talking and utter disregard for facts has led him to tell the world, in substance, that the beautiful honey which Mr. Johnson offers to his patrons each year is an artificial product, and that the combs were made by machinery, filled with glucose and sealed with a hot iron. Does Mr. Johnson now ask bee-keepers to accept this "professor" as infallable authority, and because this noted "professor" says that adulteration of foundation is practiced by our manufacturers, to have their patrons turn upon them with accusations of criminal fraud, actuated by a desire to deceive and rob? Does Mr. Johnson think bee-keepers will now take to their bosom, and clothe with divine infallibility, the individual whose reckless habit of talking, and whose vile misrepresentation of the honest industry which they cherish, has robbed it of its dignity and of its profits, and placed it before the world in the light of a gigantic swindle? If he does, he presumes quite too much upon the stupidity of the fraternity.

If any manufacturer of foundation is guilty of adulterating the beeswax used, which is being sold as pure, let some of our associations thoroughly investigate, locate the offenders and expose them to the world. The American Bee-Keeper will earnestly sanction and assist such a worthy effort.

THE DISTRIBUTION OF HONEY.

In discussing the well-worn topic of "Marketing Honey," there is always one point the importance of which is acknowledged if not emphasized by the individual who seeks to enlighten his fellow craftsmen, and that is, "distribution." By "distribution" he evidently means that after the laborious and expensive work of concentration has been accomplished, the honey should, by like methods, be again distributed throughout the land and placed within reach of the consumers from whom it had been removed.

It appears that those who write upon this subject, fail to realize that a very thorough distribution of the nation's honey crop is effected each year by nature itself, without trouble or expense, and that, before the work of shipping is begun each year, a more thorough distribution of the crop actually exists than any subsequent shipping will accomplish. In other words, the movements of the crop, through the channels of commerce, is in reality the work of concentration, and not that of distribution.

The idea seems to prevail that when a crop of honey has been harvested the next step is to move it to Chicago, New York or some other large city, the warehouses of which are probably already overladen with this commodity. When it arrives in the great city, the wholesale dealer begins to seek a market therefor in the smaller cities and towns throughout the country, and quite likely the honey may be shipped to a point very near the field in which it was produced.

We doubt not that by seeking and cultivating markets in the smaller towns, nearer home, and thereby availing ourselves of the advantage o the state of distribution originally existing the bee-keeper's profits migh be materially enhanced.

WESTERN BEE JOURNAL SOLD

The Western Bee Journal, which has been published during the pas three years in the interests of Pacific Coast apiculture, by P. F. Adelsbach of Kingsburg, California, has been sold to the Calkins Newspaper Syndicate, of San Francisco, and consolidated with that excellent agricultura monthly, Orchard and Farm, of which Mr. Adelsbach will conduct the apiarian department.

During its brief career the Western Bee Journal has been a very spicy and interesting publication and The Bee-Keeper regrets to lose it from its exchange list.

Mr. Adelsbach is president and manager of the Kingsburg Improvement Association, a corporation capitalized at $100,000, besides being editor and publisher of Kingsburg' local newspaper, The Recorder, which is also a regular visitor to The Bee-Keeper office, and it reflects the push pluck and progress characteristic o the western people.

PRESERVE YOUR BEE-KEEPERS.

Without a binder of some sort magazines are apt to get mislaid and lost and at best are not convenient for reference. Most binders cost more than the average person cares to pay for such a convenience and so various makeshifts are substituted. A handy and efficient device largely used in places where many magazines and pamphlets are received is a common rubber band costing but two or three cents. One about five inches long by a half inch wide is just right for The Bee-Keeper. As soon as you get two or three numbers snap on a band lengthways of the magazine and close to the back when it will be found that they can be opened and handled almost as well as if bound.

THE CABBAGE PALMETTO.

Prominent upon the list of Florida nectar-yielders may usually be noted the cabbage palmetto, or cabbage palm—Chamoerops palmetto—which, indeed, Prof. Cook, in his "Manual of the Apiary," says is the "noblest Roman of them all." The same work presents also an illustration of this tree, which bears about the same degree of resemblance to the cabbage palmetto as that which exists between buckwheat and basswood.

While, in certain localities, and under favorable conditions, the cabbage palm yields nectar very profusely. it is hardly reckoned as a real and reliable source by the resident honey producer, notwithstanding the almost endless profusion in which it grows in South Florida, for it has a marked predisposition to blight upon the slightest provocation, and is a very uncertain bloomer as well.

FLORIDA PHOTOGRAPHIC CONCERN

THE CABBAGE PALMETTO.

A peculiar characteristic of cabbage palmetto honey is its tendency to ferment—even in sealed combs amply protected by a strong colony, it often bursts the cappings and oozes out. The same "working" propensity is in evidence after extracting, regardless of the thoroughness with which it may have been ripened. It appears, however, to materially improve in this respect after a year or so in an airtight package, when it becomes thicker, and a very pleasant, mild-flavored honey. In color it is white, and at first, unusually thin of body.

The "cabbage" palmetto derives its name from an edible and very palatable portion of its bud, somewhat resembling cabbage, that is utilized to a considerable extent by those living where it grows in great abundance, as it does in South Florida, as may be seen by the picture herewith shown, and which gives a glimpse of one of the streams in the neighborhood of Fort Pierce, where Mr. James Heddon, the veteran apiarist, used to lure the wily black bass with his now famous "Dowagiac" bait. The "cabbage" of the cabbage palmetto in some instances affords an important part of the food supply of the poorer classes of the rural districts and is said to be very wholesome.

While it may be wandering somewhat from the subject of bees, to which the American Bee-Keeper, sticks closer than any other bee-paper in the country, our readers may be interested to learn that the cabbage is rather a wonderful tree, since it affords the material necessary for the building of a very comfortable house, as well as supplying something for the table in the way of "vegetables" and honey. Its tall, and exceedingly straight trunks make a substantial wall for a log house, while its huge fan-like leaves make a first class roof; the only expense being that of labor.

COMPARATIVE TESTS OF NEW AND OLD FOUNDATION.

The following is from the American Bee Journal of July 27, and was written by Mr. J. A. Green, of "Somewhere in Colorado:"

"Doolittle and other bee-keepers have used old foundation, and have found that the bees used it all right. Does not that prove that old foundation is as good as new? By no means. Take notice that Doolittle says that all the foundation used by him for 15 years has been put into the frames or sections during the months of December, January, February and March, then stored away until used. Will he tell us what he has had to compare this foundation with? All that his practice really proves is that bees will use old foundation, something that I think no one will question. But it would give scarcely a hint as to what was the preference of the bees.

Experience has made me a little cautious about this, though, and I never give a colony a full super of old sections. Instead, I divide the super, putting half the old sections into another super and then filling both with sections containing foundation as fresh as I can conveniently get it. They are always put in in a certain way, the new sections all on one side of the super, the old on the other, and I can always tell at any time not only which supers are prepared this way, but can always tell which of them are the old and which are the new sections. I have done this for man years, having each season from 20 t 100 supers prepared in this way. Now as to results:

In nearly every case, except whe the bees have been crowded into th supers by a heavy flow of honey th bees will start on the new section first. Occasionally they will mak quite a start on them before they wi touch the old ones, but usually, in a ordinarily good honey-flow, there wi be only a little difference, just enoug to show that they prefer the fres foundation. Even this little differenc will usually disappear before the super is finished, so unless you keep clos watch of the work being done, yo will not notice that the bees have an preference.

Perhaps you will say, if the difference is so slight that it can not b detected at the time the super come to be finished, it does not amoun to anything. It does amount to something, though, in just this way:

It is so exceedingly important tha the bees make an early start in th supers; that they form as early as possible the habit of storing their hone there; that for the first super at leas everything should be made as attractive as possible."

This is valuable not only in showin the difference between two kinds o experimental research, the first worthless, the second of much merit, bu also for giving a true idea of th values of old and new foundation. I would perhaps be well to add that i foundation is kept from the air it i to all intents and purposes new an unchanged even after several years.

There is a prayer of simple act
That from the tongue the readies
slips,
Which springs spontaneous from the
heart
And breaks in blessing on the lips—
Bless you!
(B. P. Shillaber.

Sow thou the seeds of better deed and
thought—
Light other lamps while yet thy light
is beaming,
The time is short. (Anon.

"Imitation is the sincerest flattery."

WORTH REMEMBERING.

Long ago, at that period of life when he adolescent youth is averse to any xertion, the writer among other chool duties, was to learn and "speak piece." With customary procrastiation the preparation was avoided unil, when the morning of the fateful lay arrived, nothing had been learned. n desperation a mere couplet was elected and committed to memory.

The hour arrived and before the vhole school the little tale was told, vhen instead of being permitted to tep down, the speaker was left tanding. Matters grew uncomfortale, the school tittered, the seconds eemed hours, when suddenly, came he voice of the fine old instructor—early scaring away our last bit of elf-possession—saying: "I trust you vill always remember that and live p to it. That is all.'

It is always remembered—generally oo late. This is the couplet:

If wisdom's ways you'd wisely seek,
Five things observe with care,
f whom you speak, to whom you speak,
And how, and when, and where."

HE POLITICAL ECONOMY OF BEE CULTURE.

So rarely is anything said on the olitical economy of bee culture that eneral recognition of its existence may vell be doubted. And as one visits lifferent apiaries and notes the preailing lack of sufficient equipment, f slack methods, of absence of forehought, the need of instruction along uch lines is quite apparent. To be ure, articles appear from time to time n the wisdom of getting hives, secions, etc., in advance of the time of eed and now and then a word is said n the desirability of having a full line f the implements of the craft. Much f what has been said in the line of ull equipment has been by persons nore or less directly interested in the ale of supplies and hence has been aken with a large grain of salt. ethods of honey production and sysems of management are freely disussed, but the details of manipulaion generally obscure the broader rinciples of the economics of the usiness. Here and there individual ee-keepers grasp the subject and intinctively give proper value to each letail, but thus far they have failed to write of it for the benefit of the craft.

In bee-keeping as in farming, lack of sufficient capital to properly conduct the business is the rule. A merchant or manufacturer trying to do business thus handicapped is pretty sure to fail, in fact one of the commonest causes of business failure is trying to do too much business for the capital employed. It speaks well for the possibilities of bee-keeping and farming that so much can be accomplished with them on so little capital, but the lack of sufficient capital results in an inadequate supply of implements hence greater labor and higher cost of the products, but still worse it often forces the sale of the goods at inopportune times. We invite a discussion of the subject believing that a consideration of the costs of different systems will be of definite benefit to all who keep bees for profit, or who keep bees for fun and expect them to pay for it.

The points we particularly have in mind are the question of the amount of capital per colony necessary for the greatest economy of production, the equipment in implements, the number of combs, supers, etc., needed per colony together with an idea of the number of hours of labor per colony per year that can profitably be bestowed. A better idea of these things should lead to lessened cost of honey production, to the substitution of more hives and implements for labor in one case or vice versa in another.

HONEY CROP SHORT—GRADING RULES.

Manager Leo F. Hanegan, of the St. Croix Valley Honey Producers' Association, Glenwood, Wis., under date of July 29, writes:

"The honey crop in north Atlantic states is from nothing to one-fourth, with some small favored localities having a fair crop. The quality will be fine. Our reports indicate that the crop in the arid West to date, is from no crop at all and feeding, to not more than one-fourth of a crop."

The following is a portion of a circular sent to members of this association, and at this season will, doubtless, prove of interest to others than members:

Glenwood, Wis., July 15, 1905.

Members of the St. Croix Valley Honey Producers' Association:

Kind Friend: Your report card

shows that you are expecting us to assist you in marketing your 1905 crop of honey, so here goes for a starter. We certainly do intend to be of service to all our members so far as possible. Last year experience showed us that our greatest field for labor to start with was instructing our members how to grade and pack honey properly. While some bee-keepers know how and do put their honey up in first class shape, the majority are rather careless in grading and packing. We hope you are one of the careful ones, but however, we wish to give a little advice in this letter with reference to grading and packing comb honey and package to be used for extracted honey. Out in Colorado the bee-keepers have adopted a set of rules which we believe suits the white clover and basswood localities first rate and is better than any other grading rules that have come under our observation. They are as follows.

COMB HONEY RULES.

No. 1. Sections to be well filled and capped, honey white or slightly amber, comb white and not projecting beyonn the wood, wood to be well cleaned; cases of separatored honey to average 21 pounds net per case of 24 sections, with a minimum weight of not less than 20 pounds for any single case; cases of half separatored honey to average not less than 21 3-4 pounds net per case of 24 sections, with a minimum weight of 20 3-4 pounds for any single case; cases of unseparatored honey to average not less than 22 1-2 pounds net per case of 24 sections, with minimum weight of 21 1-2 of a pronounced tinge, and all white pounds for any single case.

No. 2. Includes all amber honey and amber honey not included in No. 1; to be fairly well sealed, uncapped cells not to exceed 50 in number exclusive of outside row, wood to be well cleaned; cases of separatored honey to average not less than 18 pounds net per case of 24 sections; cases of unseparatored honey to average not less than 19 pounds net per case of 24 sections, cases of unseparatored honey to average not less than 20 pounds net per case of 24 sections.

Cases weighing over 25 ponds go in No. 2 grade.

EXTRACTED HONEY RULES.

Extracted honey shall be classified as white and amber, shall weigh twelve pounds per gallon, shall be perfectl free from particles of wax, and shal always be marketed in new cans. Al rendered honey, whether obtained b solar heat or otherwise, shall b classed as strained honey and not a extracted.

RECOMMENDATIONS.

It is recommended to sell all cul honey around home as much as possible; to grade only in daylight, near window.

Pack all sections in stout basswoo no drip shipping cases, to put pape above and below sections, to stor honey in a warm dry room well protected from flies and dust; if the hea of the room causes the wax moth t become troublesome treat the hone to the fumes of bysulphide of carbo to haul carefully, well protected fro dust and rain; do not nail covers o tight as it often becomes necessary t remove them in order to inspect hone or remove a broken section; do n put any names or marks on cases except grade marks.

FOR LOCAL SHIPPING.

We prefer to pack eight 24 poun cases in a large crate, first puttin about four inches of straw in it. Thi will act as a cushion and prevent breaking down of the combs from jarring or jolting. The glass fronts the cases should show through th crate so that freight handlers ca easily see what it is and handle accordingly. Then there should be tw long strips nailed near the top of th sides of the crate (one on each side and extending out six or eight inche forming handles by which to carr it. Another good thing is to tack o top a large card having on it in plai letters: "Comb Honey, Handle wit Care." When so prepared, comb honey should go almost anywhere b freight in good condition.

The most popular package for extracted honey is the 2 pound frictio top can, 5 and 10 pound friction to top pail, and the 60 pound square ca boxed one or two cans in a box, an the 60 pound round, flat top can wit a veneer jacket bail for handle and 3 inch screw cap in top. Any of th above recommended packages for extracted honey can be had by ordering through the National Bee-Keepers Association.

Honey and Beeswax Market.

Cincinnati, Aug. 2.—At this writing there is a good demand for extracted honey; shipments are arriving daily. New comb honey is coming in quite freely, although the demand is only fair, a condition which may be expected early in the season.

We quote amber extracted honey in barrels and cans at 5¾ and 6½c respectively; white clover extracted, at 7-8½c; fancy white comb honey at 12-15c. Beeswax is wanted at 26c.

The Fred W. Muth Co.
51 Walnut St.

Honey Market.

Denver, July 31.—No new honey offered; crop will be very light. There is plenty of last season's stock to supply the demand. We quote our market today: No. 1, $2.20 to $2.40 per case; No. 2, $1.75 to $2.00; extracted, 6½ to 7½; beeswax, 25c.

Colorado Honey Producers Association.
1440 Market St.

Chicago Aug. 4.—Fancy white, 14; No. 1 white, 13@13½; fancy amber, 11@12; No. 1 amber, 9@10; fancy dark, 10; No. 1 dark, ; white extracted, 6@7; amber 5@6; dark, 5@5½; beeswax, 28. The new crop is appearing and selling in a fair way considering that it is midsummer.

R. A. Burnett & Co.,

Buffalo, July 14.—We do not advise shipping until small fruits are out of the market. The supply of new honey, as well as the demand, is light. We quote today: Fancy new, 14-15c; old honey, 6-12c; beeswax, 28-30c.

Batterson & Co.

Kansas City, Mo., July 11.—There is but little new honey arriving as yet, as compared with last year. The supply is yet limited, but the demand is good and we think it will increase. We quote our market as follows: Comb, $2.50 to $2.75 per case; extrcated, 4½-5c; beeswax, 28c.

C. C. Clemmons & Co.

Boston, May 9.—There is no change to note, in condition of honey market, from that of our letter of April 24.

Blake, Scott & Lee Co.

Chicago, Aug. 18.—The demand has absorbed all the offerings of fancy and A No. 1 grades of white comb honey at 14c, while No. 1 has sold at 13@13½c. No call at present for other than the best grade, it really being difficult to place what ordinarily is called No. 1. Extracted white, 6@7c; amber, light and dark, 5@6c; beeswax 28c per ℔.

R. A. Burnett & Co.
199 S. Water St.

Cincinnati, Aug. 18.—The heavy requests for offers on honey recently have a tendency to lower the prices. We are striving hard to maintain good prices, by giving our friends more than their honey is worth, to hold up the market. So far, we have been successful. Still offer extracted honey as follows: Amber, in barrels and cans, 5¾c-6½c, respectively. White clover at 7-8½c. We feel that lower prices will prevail in the near future. Comb honey is coming in quite freely. We quote fancy white comb honey at 12-15c. The arrival of western carload shipments of comb honey is anticipated daily, after which the market will be shattered as to prices. Beeswax is wanted at 26c.

The Fred W. Muth Co.
51 Walnut St.

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I publish and recommend to you **THE RURAL BEE-KEEPER**, the best all-round $1.00 monthly bee journal in America. On trial three months for this ad. with 25c. Or send us 50c for a three months' trial and your name and address on a two-line rubber stamp (self-inking pad 25c extra.) Or

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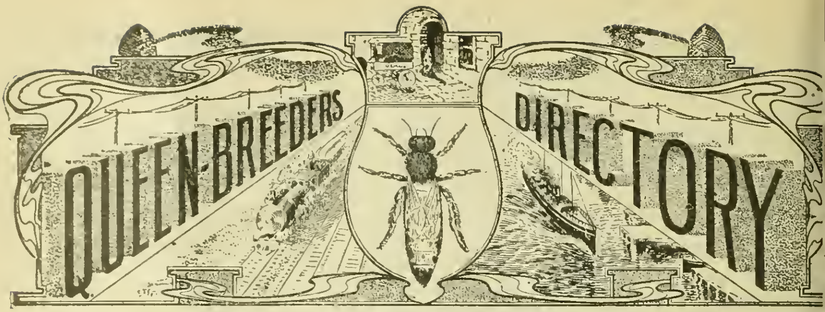

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QUEENS HERE.—We are still asking you to give us your trade. We sell Italians, Goldens and Carniolans at 75c for untested and $1.00 for tested. Prices on quantities and nuclei upon application. **JOHN W. PHARR, Berclair, Texas.** Jan6

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1-lb. tin-top tumblers, No. 789, 5 bbls. of 200 each, at $4.50 per bbl.

1 1-2-lb. tin-top glass pails, No. 778, 2 bbls. of 100 each, at $5.00 per bbl.

Large lb. tin-top glass pail, No. 777, 1 bbl. of 150, $5.00.

Small lb. tin-top glass pail, No. 776, 1 bbl. of 200, $5.50.

1-lb. Oaken Bucket, tin top, with wire bale, 1 bbl. of 150, for $5.00.

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1-2-gal. square cans with 1-inch screws, $6.00 per 100.

1-2-gal. square cans with 1 1-4-inch screws, $6.50 per 100.

1-2-gal. square cans with 1 1-2 inch screws, $7.00 per 100.

In 500 lots, 50c per 100 less.

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Triumph wrench, 15c each.

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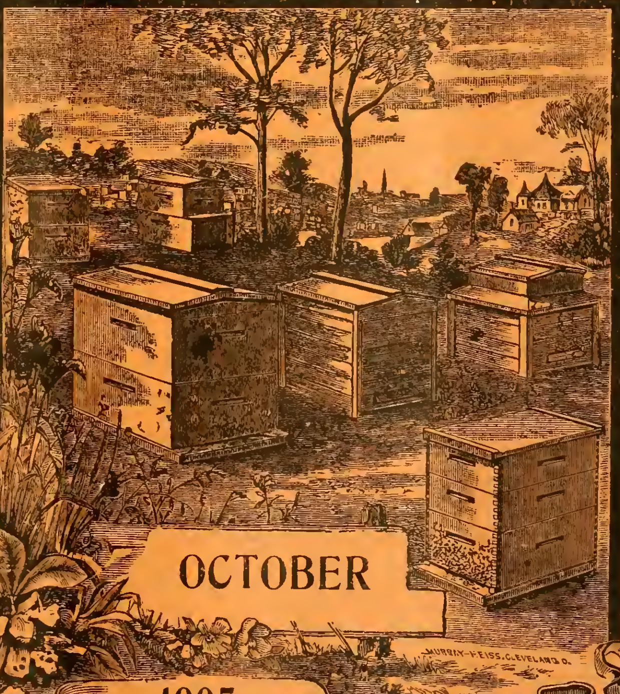
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OCTOBER

1905
VOL. XV NO. 10

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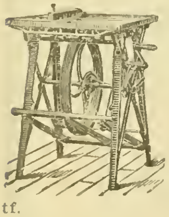

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I—5 tf. B. H. STANLEY, BEEVILLE, TEXAS.

Ahead of Shook=Swarmin

The March **Review** is now in process of preparation, and will be out about the middle of the month. One article in this issue will be by H. G. Sibbald of Canada, and he will describe a new system of management that promises to be away ahead of shook-swarming. It has these advantages: No shaking of the bees; no handling of the brood; no possibility of the queen being in the wrong hive; no danger of after-swarming; no increase unless desired (but easy to secure if wanted); no queen cells to hunt up and destroy; yet the whole force of bees may be kept together the whole season, and each colony may be requeened with a queen from a naturally built cell.

This is only a single article in one issue
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Send $1 for the **Review** for 1905; or if y
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W. Z. Hutchinson,

Flint, Mic

THE AMERICAN BEE-KEEPER

Vol. XV **OCTOBER, 1905.** **No. 10**

Not All the Time.

YOU can't be happy all the time,
  Some gloom must blight your days,
Unhappiness assails you in
  A hundred different ways,
The glory of the sunshine fades
  When clouds come in between,
And dreary winter steals from earth
  Her cheery garb of green.

You can't be happy all the time,
  But you can always strive
To keep the tiny, glowing spark
  Of joyfulness alive—
The sun retains its brilliancy
  Behind the screening cloud;
The blade of grass abides its time
  To spring up, green and round.

You can't be happy all the time—
  Some wretchedness and woe
Will bring you grief and weariness
  As through this life you go—
But struggle on and do your best;
  The luck will surely turn;
Then let the flame of hope and joy
  In all its splendor burn.

—Grand Rapids Herald.

THE HONEY PRODUCERS' LEAGUE.

Something of the Peculiarities Characteristic of That Unique Organization.

By N. B. K. A. MEMBER.

THE HONEY Producers' League has made quite a stir among bee-keepers and its sponsors are diligently trying to increase its popularity and size. Perhaps they will be properly grateful for more publicity, and in an endeavor to supply this we subjoin a little history of the movement, and some other things.

For some years there has been more or less talk and effort among members of the National Bee-Keepers' Association to have that body take some action to increase the consumption of honey and obtain and enforce laws against the sale of adulterated honeys. In pursuance of these objects the matter was brought before the meeting of the association in St. Louis in 1904. At that time Mr. York said: "In my humble opinion the N. B. K. A. can undertake and continue an advertising campaign to increase the general demand for honey better than any other organization, firm or individual. * * * * * "

"I have believed for many years that the reason why the price of honey is so low is because of the unequal distribution and under-consumption."

"I believe the only way to nail that lie (manufactured comb honey) is for our N. B. K. A. to advertise—give the public the facts about honey for awhile."

"Further, I would have our National Association urge bee-keepers everywhere to endeavor to get their local newspapers to publish information."

"The association could prepare such matter, etc."

"It is possible that a final and satisfactory solution of the advertising of honey by the National Association may include an association brand."

"In conclusion, I want to urge a thorough discussion of the advertising of honey. It is worthy the best brain in our ranks."

Dr. Miller said the association needs a larger membership to do the work and "I believe the time has come f this association to spend perhaps th greater amount of money it has spend in trying to inform the publ as to the matter of honey, its quali and all that sort of thing. The thing you want people to know."

Mr. E. R. Root said: "I would su gest that the Board of Directors urged to set aside a certain fun which can be used to pay some co petent person not only to get retra tions, but to write interesting and ori inal articles for magazines which c rectly and indirectly tell how con honey is produced, and which w show conclusively that there is such thing as the manufactured a ticle so much hawked about in t papers."

"In this association we have a nu ber of men who are perfectly comp tent to do this work under the dire tion of the Board of Directors. is not enough that the articles be wr ten, but that a representative fro the association itself be sent direct offending publisher or editor, and e plain to him the facts * * * * The ficers of this association are now sca tered all over the United States; a the board of directors could, at very small expense, send one su officer to the paper publishing su lie, and, if possible, secure a retra tion and correction."

Mr. Abbott moved for a "press co mittee" of fifteen to look after t publication in the public press of ma ter pertaining to honey. Mr. Dada said he believed it "advisable to ha the editors of all the bee journals the United States on that comm tee."

Mr. Root said: "I would like make a suggestion and that is, that t editors of the bee journals be left o of that committee. There is no dou but what the editors will do th part; they are very much interest in this question; but include oth men. What we want is to give the hings a good hammering from differnt sources."

After a short debate the association tarted this work by voting to have he directors prepare a circular on oney and furnish copies free to mem-ers of the association for distribution y them.

There arose a question as to the esirability of incorporating the as-ociation that it might have a legal tanding in its efforts to fight slanderus stories relating to honey production, and Messrs. Abbott, Hershisher, rance, Benton, and Miller were made committee on this subject. Later, ey reported as follows

Mr. Abbott. "Mr. Chairman, the ommittee on incorporation has lookd the matter over carefully and they an simply ask for more time and they esire that the committee be continued ntil the next annual meeting, when ey will be prepared to present a orough report. This matter is of tal importance and should not be one hastily."

"On motion of Mr. York, seconded y Mr. Hyde, the special committee n incorporation was made a per-anent committee to report at the ext annual meeting."

Following this Mr. Brown, of Cali-rnia, addressed the meeting on "The ollective Disposal of our Product," which he advocated the formation a stock company, owned and con-olled by honey producers, to buy d sell honey and handle it on com-ission. Among other things he said: ive them (the directors) power to en a central office, in which their anager will receive from local or-nizations, crop reports, samples of ney, amounts ready for shipment, d correspondence of every nature at will be directed to a business of is sort. Then let the smaller, or cal organizations, with which the untry is already well covered, use is general, or National Honey Pro-cers' Association for their market. his will make a gigantic brokerage stem within our own ranks, one in hich one and all can trust. Then it ill come to pass that we will be e market, we will be the head and t the tail. We will be able to ote a living price for our product, d realize as much. * * * * * The ganization should be a stock com-ny, place the capital stock at $50,-0, and sell only to organized compa-es and associations. Limit each such company or association to one share for the company or association, and an additional share for every twenty-five members thereafter. Place the par value at $100 per share, and the voting will be done by these associations or companies governed by a vote to each share. In this way we can always keep the management within our own control. No one person, or for that matter a few, can buy up the controlling interest in the association. * * * * *

"Another thing, this convention in Denver two years ago appointed a committee, and I was one member of it, to draw up plans by which an association of this kind might be formed. It is a fact that that committee did go out and report at our last convention in Los Angeles and the committee was appointed again, of which I was made chairman, and I say it is proper at this time and in this place for this thing to be brought up. It is not necessary for this association to be converted into this; it is not the intention that it should be so; but this is the place for us to take up this matter and protect ourselves against this gigantic honey concern, this combination that is combining and is crushing the life out of the honey market. Now I know whereof I speak when I speak about this formation and I can put my finger on them, I can tell you exactly who these people are. It is not well for me to give it out to the public and have it go into the press as to who these people are but they do exist; they do control affairs; they do control our honey market today and the thing for us to do is to organize and meet these things with organization, and I say it is properly in place before this convention. This matter comes up today right in perfect line with our work. Let us lend a helping hand to this new organization, and let it not interfere in any way with this association."

On motion the president appointed a temporary committee of five to name the first five directors for the formation of a national organization for the disposal of honey. Before this committee was appointed Mr. France addressed the meeting and said in part: "This association can help to check largely this cry about the adulteration of honey, either extracted or manufactured as it was claimed in comb, but I can't do it alone. * * * You have stood by the association in her days of need and in a financial way. It looks now as if it were on a basis of permanency. * * * * * I don't believe this association wants a big amount of money lying idle, but I do want to see this association have a treasury we can fall back upon to spread educational literature abroad."

The president appointed the following persons temporary committee: F. E. Brown, California; H. S. Ferry, New York; E. E. Pressler, Pennsylvania; J. Q. Smith, Illinois, and E. S. Lovesy, Utah.

When this committee assembled one member said: "Gentlemen, I think we should select men of good financial standing and influence in the National to act as the first five directors, and I would suggest Messrs. E. R. Root, G. W. York, W. Z. Hutchinson, Dr. C. C. Miller and N. E. France." Mr. Pressler at once objected and said: "There is really only one man in your list who is a practical honey-producer. While I have no personal objections to the names mentioned, yet I would vote but for that one." Mr. H. S. Ferry seeing "the handwriting on the wall," says: "This is a very important step the National has undertaken and I am in favor of going to dinner and take the matter up with a full stomach," which met the approval of all.

On re-assembling, the following honey producers were chosen to serve as the first five (5) directors of the National Honey Producers' Association of America: F. E. Brown, California, chairman; N. E. France, Wisconsin; J. W. Harris, Col. W. L. Coggshall and H. S. Ferry, New York, which the committee so reported to the session. When the report was called for by the president and read by Mr. E. E. Pressler, there was a sudden commotion and whispering among the persons whose names were first suggested but the report was unanimously adopted by a vote of the N. B. K. A. and the committee discharged.

This Board of Directors organized and started the preliminary steps for the formation and incorporation of the Honey Producers' Exchange of America, and before the final adjournment of the National Association thirty men had subscribed for stock.

This list and some other papers were turned over to one of the directors that he might secure further subscribers, his work taking him among the bee-keepers.

Later, some other directors sent fo these papers. But repeated request for their return failed to bring then until about the last of March the were returned, but in the meantim the League was formed with one o these directors as an officer. Particulars of this will be found farther or

From the foregoing it will be see that the leading members of the association advocated and urged th body to adopt a campaign of advertising and education, a policy at onc progressive and aggressive; that th association adopted such a policy that it created the necessary committees to put this policy into execution and in order that everything shoul be done thoroughly and carefully left the matter of incorporation to committee to be reported on after year's consideration, and made th other committees permanent.

Furthermore, as a part of this progressive policy, the association proceeded in another manner to protec the honey producers by starting th formation of a co-operative compan to handle the products of the sai producers and to supply them wit such merchandise as they need i their business. They called this company the "National Honey Producer Association of America." Thus fa everything seems direct and is a ma ter of record, though unknown to fe outside the membership, the pres committee not yet having produce visible results.

The meeting where all these a tions were taken was held in St. Loui September 27, to 30, 1904.

The next bit of history is embodie in the following: In Chicago on Marc 14 and 15, 1905, there was formed a organization known as The Hone Producers' League. Note the nam Heretofore, until the action at S Louis, everything has been designate as a "bee-keepers'" this or that. Th secret and precipitate manner of information, and the reasons given there for are all matters of public knowledg but it may be well, by way of emphasis to refer here to a few of th statements given in the League's prospectus and constitution and quot some parts thereof. The prospectu opens with: "A crisis has been reache in bee-keeping. The time is now her when bee-keepers must band together, as never before, fight an insidiou foe, and cope with the conditions c modern times," which implies that thi s an original idea. Further on, we ave: "Three or four of us began ecently to discuss this question, privately, by mail, and we decided to act romptly, to the extent of summoning some by telephone and telegraph) to conference in Chicago, some eight r ten representative manufacturers, lealers, publishers and honey producrs." Only three honey producers in he bunch of eight or ten men.

The constitution of the League says: Its objects shall be to create a larger lemand for honey by popularizing its se among the consuming public hrough advertising in newspapers and nagazines its great value as a food, nd by such other methods as may e considered advisable by the exective board. Also by publication of acts concerning the production of oney to counteract any misrepreentation of the same," which is exacty what the National Association had ndertaken. Next we find: "Any oney dealer, bee-supply dealer, beeupply manufacturer, bee-paper pubsher, or any other firm or individual, ay become a member on the annual ayment of a fee of $10.00, increased y one-fifth of one (1) per cent of his r its capital used in the allied intersts of bee-keeping."

And yet it is called a Honey Proucers' League!

This League is governed by an "Executive Board" in which unlimited ower is vested. It consists of seven embers. It elects from its members ve officers. These officers are acountable only to the board, i. e., to hemselves. Ballots for the election f the board are to be sent out beween the 1st and 5th of March each ear and returned before noon April st. Again we quote: "The duties f the manager shall be to conduct e actual business of the League as irected by the executive board; to eep a list of the membership; to ccount for all moneys received, and rn same over to the treasurer, takg his receipt therefor; to prepare nd mail in March of each year, to the embership an annual report conining a financial statement, and such ther matters as would be of interest to all concerned, including all balts and amendments. * * " Take ote that the manager is to send out "financial statement." No provision made for its being complete or exaustive. He is to report "such other atters as would be of interest, etc." How full is this to be? He is to prepare and mail this in March. As the polls close April 1st, and as no special provision to the contrary is made the fiscal year must close then or practically March 31st, the last day on which the manager can mail his report, and the only time on which he can render a report for the full business year. This means that the membership can not receive it in time to affect their ballots.

Much stress is laid on the clause that no salary shall be paid any officer of the league. How long since has humanity reached that Utopian stage where capable men will give of their time for the commercial benefit of their fellows, without compensation therefor?

This League is to operate by advertising and "by publication of facts concerning the production of honey." This, under the constitution, can be paid for; the board may pay whom they please what they please for this service, and we see where they may compensate themselves if they choose. But the most astounding thing about this remarkable constitution is this clause: "This Constitution may be amended by a two-thirds vote of the membership at any regular election, provided such proposed amendment be first submitted to the executive board and approved by it."

This board created itself, may control the election of its successors, is accountable only to itself, formulated the laws for its own government, asks the money and support of the public and then substantially says: "You can not say how your money shall be spent, nor change these laws without it suits our pleasure."

In explanation of the formation of this League they say in part: "Naturally, the first question asked will be 'Why form a new organization, when the constitution of the National allows the use of its funds for such work?' Principally, because the National has not enough money at its command to do the work effectively, and it could not raise enough without a change in its constitution, as, at present, only one extra assessment of $1.00 per member can be made each year, while the work of advertising, to be effective, requires thousands of dollars at once." Not a word said about the National Association having entered upon the work.

According to the report of the treasurer of the National Association there was in its treasury then some $1,115 and it has two thousand members from whom it could raise $2,000 at once.

How many thousands has this League raised and spent on advertising? What has it done that National's committees would not have done if this new concern had not butted in? Who ever heard of a campaign of education of a nation being accomplished in a few months with a few thousand dollars, and yet that is what they implied they were to do, for they said: "A large share of last year's honey crop is still unsold, while the market is practically dead, as is easily shown by reference to the market reports. The crop of the coming season will soon be here, and, should it prove a bountiful one, with last year's crop still unsold, where will prices go then?" And a little farther on they say: "Before adjourning it was resolved to do no general advertising until there is at least $5,000 in the hands of the treasurer." Decidedly inconsistent. We must look elsewhere than in their explanations for the cause of their precipitate action. Here is a list of the members of the executive board: Dr. C. C. Miller, W. Z. Hutchinson, Arthur L. Boyden, George W. York, C. P. Dadant, N. E. France and George C. Lewis, and the officers elected by this board are; President, Dr C. C. Miller; vice-president, George C. Lewis; secretary, W. Z. Hutchinson; treasurer, Arthur L. Boyden; manager, George W. York. Compare these names with those of the speakers quoted at the beginning of this article and with the officers and committees of the National

Now these gentlemen had a perfect legal right to form any sort of a company they chose, name it about as they pleased, and invite the support of the masses. But several of them had no moral right to do as they have done after what they said and did at the meeting of the National Association, and particularly after that association—of which some of them are its officers and servants—had taken formal and proper steps to do the very thing the League claims it is to do. Having asked the support of the public they will be scrutinized by the public. Being members and officers of the National Association, whose trust they appear to have betrayed, other members of that association ar going to hold them accountable an they will be called upon to answe some very pertinent questions.

Some of these men are directly interested in the supply trade; and it i vital to their interests to have a controlling hand in the literature of th business. Others are dealers and jobbers in honey, and naturally they, to look askance at the plain producer presuming to control their own affair Some are interested in advertisin agencies, and have an eye for business. Some are publishers and find i essential to their best interests to b able to "be on the inside." Some ar inspectors of apiaries in which position they wield a powerful influence In all essential things each support the other. So long and so noticeabl has this condition existed that beekeepers refer to the group as "th ring."

It is perfectly proper for thes friends to assist each other in any legitimate and open way, but to do s at the expense of the honey producer is something about which the latte are going to have something to say.

They claim to be acting for the goo of the bee-keepers at large, but woul it not be more seemly to wait unt these bee-keepers asked them to act Yes, the Association asked and directed some of them to act and define what they were to do and now members of that Association want to kno why they took it upon themselves t try to forestall the Association pla They also want to know why this little group of men consider their unite opinion in Chicago superior to thei opinion and that of the bee-keeper assembled at the St. Louis meetin There are a lot of other things members of the Association want to kno and they are going to come pretty nea finding out.

The time has arrived when the hone producers are going to manage thei own affairs and they are going to sa to all others, "Keep off and keep ou When we want your goods we wil buy and pay for them, and when yo want ours we will sell them to yo but we will have no entangling alliances."

Bees hate the electric wires, an there are well authenticated cases o a swarm of bees altering their fligh to avoid adjacency to the lines.—London Globe.

BEE CULTURE IN JAPAN.

By Burton N. Gates.

JAPAN, of late, has shown marked interest in bee-keeping. The in-ustry as practiced formerly by the atives was not particularly profita-le; but now measures are being tak-n to make bee-keeping both pleasur-ble and profitable. The progress of he West is being investigated and atterned after.

In Japan, the center of this advance-ient has been Tokio, where a school nd association for the promotion of ee-culture, have been established. In ie school girls iiefly are instruc-d, the purpose eing to give to ie women a light aft which they in apply while the ien are busy with ie more laborious ork of farming. s an industry in self, bee-keeping not especially ad- sed.

The association ientioned (proba-y a part of the hool) has been oing great work i promoting the t of bee-keeping. translation of an dvertisement ads: "This as-ociation is trying enlist members r the study of icultural meth-ls as a side-bus-ess for farmers and women. The ourse is to be completed in three ionths. Membership, 1 yen and 20 n (or 60 cents.) Members can study home; printed lectures by K. wayagai, assisted by others of prac-cal experience will be sent out. Mem-ers can secure queens at half price. Queens kept by the association have een selected and tested for years. hey are of good habit and easy to anage.) Members can also dispose their bees, wax and honey through ie association."

We have learned of two works pub-shed by this association and written K. Awayagai. One is entitled Evening Talks on Bee-culture." The second is "The Honey Bee," Tokio. First edition in 1896 and third edition in 1899. It is a paper bound, illustrated booklet of seventy-four pages, selling at twenty sen or ten cents. (This is quite a contrast to the price of American or English bee-literature.)

K. AWAYAGAI, Tokio, Japan.

From a brief abstract of the work, the author appears well versed in Western methods. While he claims not to translate the work of Western authors, he has evidently followed closely their thought. The illustrations are also Western devices, such as extractors, honey knives, hives and so on. In his chapter on diseases, while he does not mention any Western author, the writer shows his familiarity with recent bacteriological and medicinal investigations.

In his preface he says that the book is the result of his personal experience of many years "based on the investigations of others and supplemented by the theories of Western authorities." The work does not attempt to be exhaustive or technical, but to meet especially the needs of farmers.

In his introduction, the writer further says, in substance, that "bee-keeping is particularly profitable in Japan because of the many flowers which bloom all the year round. Anywhere ten to twenty hives may be supported; while in the mountains, as many as a hundred are of profit. The honey may be used instead of sugar (all of which has to be imported at considerable expense.) There need be no anxiety of an overproduction of honey in Japan. The market shows considerable demand for honey at an excellent price. (What this is, we have no statement). The avenues of use will increase, not decrease."

In brief the table of contents is:

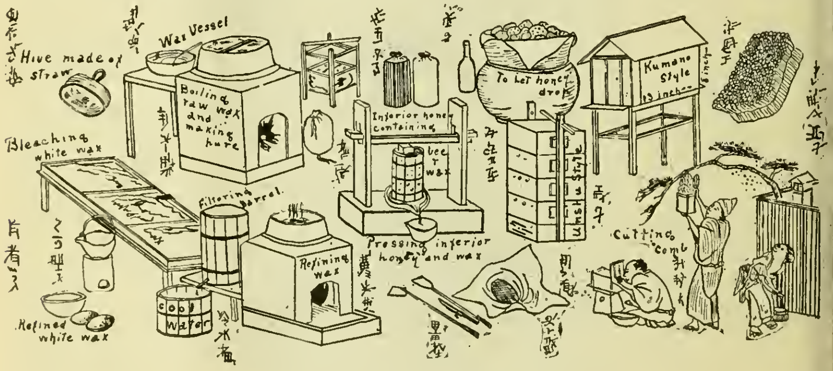
1. Introduction.
2. Nature of the Honey-bee (char-

acteristics and natural history).

3. Growth and development of the larvae.
4. The cells: kinds, etc.
5. The swarm.
6. The Bee-yard
7. The hive.
8. Management.
9. (a) Taking the honey.
(b). Rendering the wax.
10. Uniting swarms.
11. Queen breeding.
12. Methods of transportation by water and rail.
13. Diseases and enemies.
14. Bees do no harm to plants.

While this Eastern work shows nothing strikingly new, it does indicate that Japan is alert and attempting to keep abreast with the West. If she keeps on in this direction, we may well expect to soon hear of important apiaries in the East; we may expect to look there for advanced ideas.

Worcester, Mass., Sept. 2, 1905.



SOME JAPANESE BEE APPLIANCES.

THEORY VS. PRACTICE.

By Dr. W. R. Claussen.

EDITOR Bee-Keeper: It was with gratification I read Mr. A. C. Miller's article on sugar feeding in the September issue of American Bee-Keeper. One great trouble with a good deal of our literature is that the editors try to be scientific and pay too little attention to the practical workings of the hive.

The packing of the brood nest with sugar syrup looks, from a theoretical standpoint, correct enough and would be all right provided the bees would leave it there; but they do not. The carry it into the upper story as soo as the queen needs more room below This is easily ascertained by fillin the hive with buckwheat honey in early spring and watch results. When th clover honey comes there will b found buckwheat honey in the sections—sometimes full sections of it This is particularly true where bai sections are used. That Mr. Boardma and Gleanings (which, by the way dishes up a lot of trash) deny it, doe not make it so. It makes me thin of a relative of my wife's. He was Seventh Day Adventist and those people at that time considered pork-eatin and beer drinking a sin. This man' main crops were pork and barley When asked why he raised those tw crops when it was sinful to eat por and drink beer, he answered: "Mos of the pork raised is converted int wagon grease and other lubricant and the probability is mine will never be used for food." The barley tha was left over from fattening the hog was shipped to Milwaukee, but it wa probably not used to make "the bee that made Milwaukee famous." S with Gleanings. The supposition i that what syrup is put into the broo chamber will be used for food for th young and only the real article store for human use.

Last spring I was in one apiary where sugar syrup is left in trough all through the spring (thanks t Gleanings' teaching.) I protested wit the man; the answer I got was tha it did not incite robbing and that they would not touch it when honey came in. Both statements are true; but that oes not prevent a lot of the stuff oing into the honey that is sold. A yspeptic who had bought honey at hat place asked me why that honey istressed him, while he could eat mine without trouble. Gleanings tells s the sugar thus taken by the bees is nverted; that may be true too. I do ot just know what that means; but he fact remains it is cane sugar just he same and, if sold for honey, is a raud. The only safe course to purue is to let sugar alone entirely.

Mr. J. E. Johnson gives our foundaon makers a rather hard rub. I do ot agree with him. I believe the oundation we get is pure. If it is dulterated, it is done, I believe, hrough the wax being adulterated by he apiarist. It would be impossible for he manufacturers to test all wax sent hem, and, unless the adulterant is added in very large amount it will pass nnoticed. A few years ago a friend f mine sent some wax to a manufacurer and a neighbor wanted to send ome with him to save freight. Word ame back that the wax marked so and o, contained tallow. My friend went the neighbor and he frankly admited that one-fourth was beef tallow; ut he did not suppose they would ver know. Mr. Johnson thinks that is white foundation, that will not get oft in the warmest weather, contains pretty large amount of paraffine. It night perhaps be done as some araffine has a fusing point of 113 egrees and stearin of 159 degrees; but hite or bleached wax is harder and nore friable and has more resistance heat than yellow wax, which melts t about 140 degrees, while the bleachd wax melts at about 150 degrees. hat is probably the reason why the ees do not accept it as readily as the ellow wax, which is much more plible. I did not see the statement that rof. Wiley gave to the Rural New orker in regard to paraffine being nade use of in making comb base. erhaps he did. If I had seen it, it vould have had very little weight with ne, knowing where it came from. Is , however, not a fact, as Mr. Horn tates in his article, "Politics in the piary" that lots of our so-called scintific appointees get their appointnents to pay off some political debt nd are appointed without regard to heir fitness or qualifications for the ffice? Of course, they are supposed do something for the public, who oots the bills, so they ascertain a little, presume a good deal and jump at conclusions. The resulting theory is given as a fact to the public; but it remains for the practical man, by his work, to prove or disprove this theory. If it is correct, the scientist grows big in the eyes of the world as well as in his own estimation. If it is wrong he remains right in his own eyes as well in the eyes of a good many others till the thing is forgotten. This holds good in apiarian, agricultural, medical and all other pursuits. We have too great a tendency to accept theories and ignore the practical workings of the every-day toiler, whose daily observations are worth a great deal more than the theory of a "professor," who never does any practical work, but to draw his salary.

Our state has been singularly fortunate in the appointment of its foul brood inspector, who is a very careful and conscientious man; but I agree with Mr. Horn if the foul brood law in California works the way he says, the inspector is to be feared more than the disease.

Waupaca, Wis., Sept. 9, 1905.

THE FOLLY OF TINKERING WITH BEES FURTHER CONSIDERED.

By T. K. Massie.

ON PAGE 138 of The American Bee-Keeper for July Mr. McNeal says several things that need to be further considered. I endorse all he says on the folly of tinkering with the bees until he comes down to his plan of procedure. I would use a brood chamber of larger capacity than the ten-frame Langstroth hive.

Large hives are certainly preferable. I would use a double wall, divisible brood chamber hive, capacity equal to about 13 L. frames. Now I would like to ask Mr. McNeal why go to the extra expense of providing a super of six-inch combs and "fussing and tinkering" with them (the very thing he tells us not to do) and that enamel cloth? He tells us not to "tinker with the bees," yet he goes to "tinkering" with them in his manipulations of that extra super. Why that honey board which is fussed and tinkered with? Combs in which brood has been reared, like his 6-inch combs, are rather objectionable as extracting combs. I want none of the coccoons (the "swaddling clothes") of the young bees about my honey, either comb or extracted.

I see that Mr. McNeal describes the hive "he uses" in The American Bee-Keeper, which is patterned almost exactly after my hive. He uses the principles in construction of my hive in his. For the last three years I have been mailing him my catalogue, describing my hive and it seems strange that he has not caught the idea that a whole lot of the fussing and tinkering with the bees are practices that can be left off to the advantage of both himself and his bees. Work them on the "let alone" principle. I repeat his advice, "don't tinker."

I will describe my plan and if any of my readers will tell me where and how I can leave off any of the work I will thank him for it.

I use a divisible brood chamber hive, cubical in form, with a capacity equivalent to 13 Langstroth frames. Not later than September 20th I see that each colony is provided with a vigorous and prolific queen and fully 40 pounds of sealed stores, the fullest frames being placed in center of the upper story, the frames containing brood in the center of the lower story. I put the super cover, a thin board, over the brood chamber for the bees to seal down; on it place a cushion of dry leaves and over all put a telescope cover. In this condition I leave them alone till about April 15 of the following year—nearly 7 months. I then go over each hive to see that each still has a queen and plenty of stores to run them till the honey flow comes on. When the honey flow is on and the hive getting full of bees I put on my supers, the super cover being placed a bee-space above the sections. I use no enameled sheet or honey board; and I put on supers before the bees become crowded for room. Supers are added as more room is needed. If a colony swarms I hive the swarm on the old location, in a single brood chamber with two frames of combs and the rest of good sized starters; remove all surplus receptacles from the old colony and put them on the swarm. By this plan I scarcely ever have any trouble by the queens going up into my supers. When the honey is ready to come off I take it off by using a Porter escape, and, when the honey flow is over, double two swarms together which gives me a good colony for winter. Now how can I shorten my labors, either in plan of work or change in hives an appliances? "Don't tinker."

Mr. Geo. B. Howe, page 155 a tempts to make a point against t cubical form of hive by telling us bee trees with combs four or mo feet long (I have seen them ov eight feet long.) Now let Mr. How turn these long combs down in horizontal position and see "where is at." He will then have a "long ide hive and plenty of unoccupied comb Heated air rises and the long com in the bee trees, standing in a pe pendicular position, proves a point i favor of the cubical form of hiv rather than against them.

Tophet, W. Va., Aug. 25, 1905.

A VENERABLE STUDENT.

By Thomas B. Darlington.

EDITORS AMERICAN BE KEEPER: I've been trying th summer to learn something more abo bees than I had known practicall heretofore. First, that of bees movin their eggs from one place to anoth in the hive. I had a weak swarm th was queenless long enough to mak it sure there were no eggs in the hiv I then gave them a piece of comb wit eggs in the lower edge of outsi frame. When in long enough to ha cells capped I found on the upp edge a queen cell built and attached t comb of next frame, so that in raisin the frames I destroyed the cell; s I had that trial to go over again. replaced the piece of comb with a other having eggs in, and in due tim they built a queen cell, but this tim on the third frame and on its upp edge, which produced a fine quee Now I am satisfied that bees can an do move their eggs when they choos to do so.

There is another point about bee that I am not so clear about, and tha is about the queen mating. I had hive of very yellow Italians, the moth er of which was exceedingly yello and was introduced in August 1903. I due time the hive was filled with thes bright bees, all others having disap peared. The summer of 1904 bein poor, they did not swarm, but in th fall they were considerably darke This summer they swarmed on Ma 3rd, and the new swarm swarme again on the 6th of June. The bees o the old hive keep getting darker. Th rones are as yellow as at first, and lenty of them. There are dark bees hree-quarters of a mile off, none near- r. Now, I would like to know if a queen roduces a hive of nice yellow work- rs and drones, why don't she always o it? It looks to me that she follows he ordinary order of nature that for very new crop there is a new mating nd that after laying drone eggs she done laying until mated again. It akes drone's eggs longer to mature han workers, therefore laid last. Queens with clipped wings can not y, and who knows but they may mate n the hive? So far as my observation oes bees never swarm naturally un- l they have drones enough to go with hem.

We have had two very severe win- ers on bees; the last two I lost of nine but three colonies and as good uck would have it, they were three I had Italianized in August of 1903, the other 31 colonies perished from cold, had plenty of stores, were unable to et to it on account of the intense old.

I have had the care of bees since bout twelve years old wthout a break. was 90 the 10th of this month, but his came the nearest to being entire- y wiped out. I might have saved hem by moving the side combs to luster but we don't know how long ero weather is going to last. The ueer part of it was, I was intending o Italianize the whole, and to find that ll were dead excepting those already talianized.

West Chester, Pa., Aug. 22, 1905,
Route No. 7.

FAILURE IN IDAHO.

By E. F. Atwater.

RIEND HILL: Over 300 colonies in our three comb-honey yards ave produced just four supers of oney. Over 350 colonies in four ex- racting yards have produced only 3,- 00 pounds. The first failure in ten ears' work with the bees, in South akota and Idaho.

About three weeks ago I moved 00 colonies to a location about 36 miles from here, where a fair flow as in progress and may get 10 to pounds per colony there. They ere moved with entrances wide open; he loads on spring wagons gave no ouble but one load on a "dead ex" agon was a little "frisky" and the good "Corneil" was kept a-puffing. By moving with open entrances there is no loss in vitality to the bees, and they are at work as hard as ever, soon after setting off the wagons. A wagon sheet covers the top of the load, with sides and bottom open for ventilation. The bees are subdued before loading, and, if you are "afraid for scare" better cover the horses' heads with cheesecloth for a few miles as a bee near a horse's head causes the horse to shake his ears and these "stimuli" stimulate the bee.

Meridian, Idaho, Aug. 26, 1905.

POPULARIZING HONEY.

By M. F. Reeve.

AFTER reading the article on "Profitable Marketing," by J. Milton Weir in the August Bee-Keeper, it seems to me that those who are talking high prices for comb and extracted honey are "barking up the wrong tree." What people want nowadays is a cheap article. That is why glucose syrup put up in tin cans, selling at 10 or 12 cents quart size is so popular.

Honey at 50 cents a quart bottle consequently gets the go-by. A Market street storekeeper in Philadelphia who sells several tons of comb honey from New York state every year at 18 to 22 cents a comb, in glazed section, told me he could sell twice as much and perhaps more if he could put it out at 2 for 25 cents. He said people didn't feel like paying for glassware in buying honey. Those who sell extracted honey could do a better business it seems to me if they accepted Mr. Weir's suggestion and taking a lesson from the syrup men, put up their goods in tin with gaudy labels, that would catch the eye of the buyer. Everything nowadays depends on the attractiveness of the label. How many honey producers are there who put any name or mark on their sections by which it might be known? Not one that I have seen. Tin cans, it would seem, would be the very thing—pints and quarts, and gradually displace glass.

Rutledge, Pa., Aug. 10, 1905.

The purest treasure mortal times afford
Is spotless reputation; that away,
Men are but gilded loam or painted clay. —King Richard II.

A Handfull of Bees

BEE EXPERTS HUNT QUEENS FOR PRIZES

Great Gathering of Honey Producers at Jenkintown Apiary.

STINGS ENOUGH FOR ALL.

Four hundred men and women bee fanciers from all sections of the East strolled back and forth among hives, toyed with queens and handled drones at the apiary of W. A. Selzer, Jenkintown, yesterday, at an all-day meeting, held under the direction of the Philadelphia, New Jersey and Pennsylvania Bee-Keepers Associations. New York city and vicinity sent big delegations, and two native Filipinos were present to carry back to the islands the information they saw and heard.

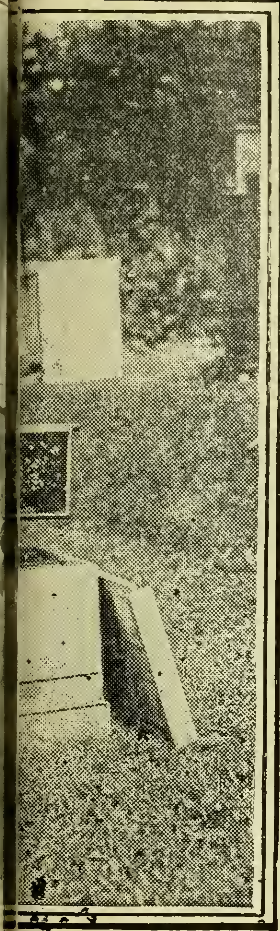
Before the sessions had been concluded the bees took the demonstrations into their own feet, and there were so many subjects of the bee sting that a formal experiment, which was planned for the visitors' interest, was not necessary. At no time was there a rout of the demonstrators, but there were a good many moustache combings and eye jabs that indicated stinging unpleasantness.

Several hundred persons, half of them women, wearing veils of mosquito bar, moving about the buzzing hives, picking up bees and stroking their backs, made an interesting picture for the laymen, in s
ironclad sign, "Don't di
hives!"

But that passed into th
when Dr. E. F. Phillips, of
States Department of
scooped two handfuls off a
heroically held them unti

MEN WHO HA

Four hundred bee fanciers from all s
to attend a meeting held under the auspic
were given by experts to show that bees c
swarm and picked out the queen of the co



EAR OF STINGS.

of W. A. Selzer, Jenkinstown, yesterday, nd New Jersey societies. Demonstrations ran bee raiser sat in the midst of a buzzing d be done without harm to the operator.

his hands indicated trouble. een handling the so-called docile Caucasian bee, which d not to sting under any ces.

en-Hunting Contest.

I. Twining, a veteran agri- Logan, sat in the midst of a buzzing swarm, and, after a few minutes' effort, picked out the queen of the colony, just to show that such things can be done without the smoke pot.

Not Bothered by Stings

This demonstration was repeated in part in the queen-hunting contest, in which Prof. H. A. Surface, of Harrisburg; W. W. Case, of New Jersey, and L. W. Boyden, of Philadelphia, acted as judges. There were four contestants. Each took his position before the hive, and at the clap of the hand thousands of bees were liberated, and the contestants started on the bee hunt.

Out of the swarming mass John R. Tull, of this city, and W. H. Peck, of Perryville, Md., landed their catch in fifty seconds. F. A. Lockhart, of Lage George, N. Y., consumed nearly three minutes in his hunt, and W. H. Wolf, of the Bermuda Islands, finished a half minute before.

Without veil, gloves and very little smoke, Harold Hornor, of this city, gave a demonstration of hiving an artificial swarm. He shook thousands of bees on blank paper, and, with their queen leading the way, the march of the 10,000 was taken into the hive. Several times the bees showed fight, and at least once the demonstrator jumped from the platform.

Looking for the Ideal Bee.

Professor Surface, who presided at the late afternoon session, said in his speech that he looked forward to the cosmopolitan bee, having the best qualities of the many species of bees. The essentials of an ideal bee are good housekeeping, long-distance traveling, long tongue and gentleness. By the crossing of the different species he hoped to obtain the ideal.

There are 28,000 bee raisers in Pennsylvania alone, he said, and urged some legislation which would protect the apiculturists, as well as prevent the foisting upon the market of adulterated honey. He thought this could be realized through the appointment of a state bee inspector.

Queens Wed Once for All.

E. L. Pratt, of Swarthmore, displaced several theories in his paper on "Increase and Nuptial Flights," in which he stated that though the queens receive many proposals of marriage, they accept but one during their lifetime, and this in spite of the fact that suitors follow them to the clouds.

"Ofttimes," said he, in discussing his paper, "the queen is pursued by twenty-five suitors; but she chooses but one, and the marriage pact is then inviolable."

William Houser, of Wirtville, N. J., was awarded a prize for the best comb honey, and Franklin B. Fox, of Erwinna, Pa., won similar recognition for extracted honey.

Dr. L. M. Weaver, of West Philadelphia, presided at the morning session, and William W. Case, of the New Jersey Association, at the early afternoon meeting. There were addresses by J. B. Case, of Port Orange, Fla.; L. C. Root, of Stamford, Conn.; the Rev. Julius Hanko, of Austria; Dr. M. N. Nieffer, of this city; J. H. M. Cook, of New York, and Richard D. Barclay, of State College.

THE NATIONAL CONVENTION TO BE HELD IN CHICAO.

Ever since the breaking out of the yellow fever in the South, have I been receiving letters from different parts of the country, suggesting that the place of meeting for the National convention be changed to some Northern city. To all, for a long time, I returned the same reply: "Let's wait and see how things turn out. If the fever is crushed out of existence, or controlled, then we can go to Texas just as well as ever." To a certain extent the fever has been controlled, but there seems to be no probability that it will be done with before the time that has been set for holding our convention in San Antonio. The time has come when we can wait no longer. If a change is to be made, it must be made at once, that bee-keepers may be planning accordingly. Before taking up the matter with the executive committee, I wrote to the directors, the editors of the leading bee journals and to several of the most prominent bee-keepers, asking for their views on the subject. The majority was overwhelmingly in favor of a change. The matter was then taken up with the executive committee, and every member favored a change to Chicago, during the fat stock show, the first week in December. It is possible that some other Northern city has greater claims than Chicago for the holding of the convention, but the meeting must be held where reduced railroad rates will be assured, and the fat stock show at Chicago furnishes these.

It is possible that there is no real danger from the fever at San Antonio, but the fear of it is real, and would have kept away the Northern people. The bee-keepers of Louisiana and Mississippi would also have been shut up in their own states. Texas has had a slim crop of honey this year, and, taken all in all, a convention this fall in San Antonio would have been a pretty slim affair. I think that even the Texans themselves would rather wait until another year, when, if all goes well, the convention could be held in San Antonio with every assurance of a big crowd.

Arrangements have been completed for holding the meeting in Chicago, at the Revere House, corner of Michigan and Clark streets, on the 5th, 6th and 7th of December. This hotel can accommodate at least 300 bee-keepers and the rates are 75 cents for a room alone, or 50 cents each where two occupy the same room. Meals are extra, or they may be secured at nearby restaurants.

W. Z. HUTCHINSON, Sec.

NEW ZEALAND NOTES.

By J. G. S. Small,

Expert Appointed.

At last the bee-keepers of New Zealand have been satisfied by the appointment of a "bee expert" by the local government. Mr. Isaac Hopkins, who has been connected with the bee industry is the first expert that has ever been appointed to rule over the bee industry of this fair isle, and not a better appointment could be made. The movement which was set on foot by Mr. Gilbert Small was taken up by Mr. Hopkins, who, in connection with the former gentleman went heart and soul into the work with the government and although two long years passed before there was any appointment made, these two gentlemen found that their labors had not been in vain.

J. G. S. SMALL, New Zealand.

Mr. Hopkins is at the present time engaged in carrying on a lecturing tour through the colony and is receiving good receptions wherever he has called. The many bee-keepers' associations that are being formed is ample to prove that the people acknowledge that there is something in the bee industry, and where the system that is proposed is carried into practice it would be the making of the industry. The fact that Australia, America and other leading bee countries have their experts and inspectors and the trade attended to is ample to show that New Zealand should be in a position to support an expert whose whole time will be given up to the industry.

The Seasons.

The last summer and autumn have been simply ideal, and many bee-keepers report good crops. The weather was fine through the summer, with a few occasional showers, making ideal conditions for the secretion of nectar. The white clover, however, was rather scarce throughout the colony—coming into bloom in December it lasted until the 1st of February—but we were supplied with a good, healthy growth of thistles, which yielded a rather dark-colored honey.

Prices.

For the information of American readers I quote prevailing prices at this time as follows: Pure extracted honey in two-pound cans, 5 1-2 to 6c; dark, 5c. In 60-pound cans, 4 cents. White comb honey in one-pound sections, $2.00 per dozen.

Foul Brood.

Foul brood is not so prevalent as formerly. This, I think, is owing in part to the mildness of the season and to the greater precaution of bee-keepers in preventing the disease.

Marton, New Zealand.

December being the last month posble for the holding of the National convention, it is earnestly to be hoped that measles may not break out in Chicago, thus necessitating the selection of another site—probably in Labrador or Alaska.

The vice-consul for Sweden and Norway at Cape Haitien, Haiti, a Bee-Keeper subscriber, advises that the export duty of four cents per gallon on honey has been abolished by the Haitian government.

The Bee-Keeper has received a number of novel and beautiful souvenir postal cards, mailed en route by Prof. Frank Benton, now in the far East.

The interests of the plain bee-keepers are our interests. We have no entangling alliances.

If you see it in the Bee-Keeper you may depend upon it.

THE
Bee-Keeping World

Staff Contributors: F. GREINER and ADRIAN GETAZ.

Contributions to this Department are solicited from all quarters of the earth.

GERMANY.

SHOULDN'T OBJECT TO PROFIT.

"It is all well enough," says Wolf, in Neue Bztg., "to keep bees for the pleasure of the thing, but it is just as well to also look for profits to be obtained out of the pursuit."

A RETAIL HONEY TANK.

H. Bruder is offering now a storage tank for honey suitable for the retail trade. The tank is made double and the space between the two may be filled with water, to prevent scorching the honey when heating or liquefying. The tank has also a honey gate. This is the greatest improvement on the whole invention, for formerly it was necessary to ladle out the honey to fill glass bottles and other dishes. The inventor places a great deal of stress upon this feature, which he says he has had patented.

INTRODUCING QUEENS

Editor Reidenback says in Rialz. Bzgt., in regard to introducing queens, that a colony is not in proper condition to accept a new queen till after having been queenless for five or six days. Then, he says, is the time to give the new queen in a wire-cage, leaving her confined for three to four days when she may be released. (The writer loses no queens during the earlier part of the season, and through the buckwheat honey season by giving the new queen when removing the old. He manages in such a way that the bees themselves liberate the new queen during the following night; this refers to queens reared in the same yard, queens taken from one (nucleus) hive to another.)

A HONEY MARKET DAY.

For the benefit of honey producers in and around the great city of Berlin a special day was set by the authorities last fall for the sale of honey. This was advertised extensively, but only five bee-keepers appeared on the market. They sold out pretty quickly at 27 1-3 to 28½ cents per pound of extracted honey.

SAVE THE NATURAL CELLS.

F. Dickel has this to say in Die Biene about modern queen production: "Since it is generally admitted that queens, reared by the new and so-called improved methods, are inferior to normally reared queens, it is advisable that bee-keepers make better use of the cells so easily obtained from their colonies having cast swarms."

EGYPT.

OLD ENOUGH TO BE GOOD.

Maspero, director of the excavating force at Theben, has discovered three jars of honey, supposed to have been gathered by bees some 3,000 years ago. The honey was well preserved.—Bienen-Vater.

SPAIN.

A PUBLIC APIARY.

It is reported in Illustr-Deutsche Bztg. that an apiary has been established in a public park in Barcelona. The object is to familiarize the public with bees and bee-keeping. (A great many city people know absolutely nothing about the honey bee, even in America and an enterprise of this kind must necessarily serve the interest of honey producers.)

FRANCE.

A GOOD SCHEDULE.

A certain bee-keepers' society in France has established the price of honey for 1905 according to Apiculteur as follows: Ten cents per pound retail for extracted; 9 cents per pound wholesale for extracted. Comb honey not mentioned.

SWITZERLAND.

DRONES ARE ALL RIGHT.

Dr. Bruennig claims to have proven by an experiment described in Neue Bztg. that drones, mothered by a virgin queen, are virile and equal in every way to drones from a normal queen.

Thirty-eight hotels in Switzerland have now agreed to furnish only pure honey to their guests.—Leipz. Bztg.

ENGLAND.

THE SIMMINS METHOD.

Now and then some mention is made of Mr. Simmins and his non-swarming hive or system, or rather, both combined. The system is intended to be applied to the production of comb honey.

In producing extracted honey swarming can be almost entirely suppressed by giving enough already built combs to hold all the brood raised and all the honey that is brought from the field. But, as we know, foundation is not combs.

Another fact of which Mr. Simmins availed himself is that the bees cluster immediately behind the hive entrance and, furthermore, that they do not tolerate empty space inside the cluster. They will build combs there even if they have to gnaw or nibble off the wax from the combs in the more remote part of the hive.

This being the conditions, Mr. Simmins proceeds thus: The space immediately back of the entrance is provided with frames with starters only. According to their instincts the bees rapidly complete these combs. As fast as they are built, the apiarist cuts them out, fits them in sections and puts the sections above in the usual way. The effect of this is to provide combs partially built in the sections and thus to approximate the advantages of the already built combs used in working for extracted honey.

The hives used in England are different from ours, in shape, size, number of frames, etc. Mr. Simmins uses two styles. One is a one-story brood nest with the frames across, about 15 in number, the six or seven in front being those destined for comb building.

The second style is a two-story hive. The lower story contains the frames with the starters for the building of comb, the top story the brood nest and finally the supers are placed above this. The frames in the latter system can be placed lengthwise. As far as I can see, this plan could be carried out as well with our American hives.

ITALY.

On account of light honey crops the price of honey has advanced in Italy from 4 3-4 cents per pound to 6 cents.

MR. DUBINI'S BEE-KEEPING.

For years Mr. Dubini (now deceased) was one of the leading apiculturists, not only of Italy, but of all Europe. He has written numberless articles for the bee papers and a few books that are considered among the best.

He had some peculiar ways of managing bees. He always removed the brace combs (beween the top bars) of his frames and anointed them with vaseline to prevent the bees from rebuilding them. He did that in the fall of the year, but he always left the burr combs (those on the top of the frames) to facilitate the climbing up in the supers.

His hives were double walled, with a cushion above in winter. For making the cushion, he considered tow as the best material. Needless to say that in Italy, the bees are never wintered indoors.

Incomplete combs (in the supers) were saved until the spring, and then uncapped and set over the hives for stimulating purposes and removed as soon as empty.

The hives were tilted forward considerably, relatively speaking, during the winter, in order to get rid of thhe condensed water from evaporation. He did not contract the entrances as a protection against the mice. He thought it unnecessary, and very likely it was in his locality. He thought that the bees would come out in the spring far more healthy when they had good ventilation during the winter. He used to make holes in the upper part of the combs to enable the bees to pass from comb to comb without having to go around. Sometimes a part of a cluster eats up all the honey around and can not go to another place because the temperature is too low to travel around the combs. To prevent the bees from plugging the holes, he inserted small tin tubes in them.

He did not like the Dadant or Langstroth frames—thinking them too shallow. The bees winter far better in tall frames than in shallow frames.

He sometimes united the colonies that had swarmed, two by two to keep them strong and avoid too much increase.—L'Apicoltore.

WINTER CONSUMPTION.

Mr. Tesselsky, through repeated experiment found that the bees wintered in single walled hives consume 18 per cent more honey than those wintered in double walled hives.—L'Apicoltore.

BEES HATCHING EGGS.

Mr. Jamarrone has for several years hatched chickens in bee hives. He advertised an apparatus for containing the eggs for something over $2.00.—L'Apicoltore.

SUNSHINE IN WINTER.

Mr. Bauchenfels believes in disturbing the bees as little as possible in winter. He thinks the shining of the sun at the entrance a strong cause of disturbance and put a small board above to shade them. On the other hand, he believes the heat of the sun shining on the wall to be beneficial, enabling the bees to change their position if necessary, in order to reach the honey beyond the part of the combs where it is already consumed.—L'Apicoltore.

SEPARATING SWARMS.

Dr. Metteli has had ten to twenty swarms a day in his apiary. Very often several unite. If left alone until evening, the united swarms separate into lobes, each containing a queen.—L'Apicoltore.

HONEY SHOE BLACKING.

Mr. Jozzelli gives the following recipe for shoe blacking: Add as much lampblack or better refined bone black to extracted honey, as will admit of stirring the mixture with a stick, when cold; then warm until softened and put in boxes. Shoes should be thoroughly dried before applying. This blacking preserves its gloss for a long time, prevents cracking, and preserves and softens the leather.—L'Apicoltore.

COLOR OF WAX.

Dr. Dubini is quoted as having said that the yellow color of wax is due to pollen. He used to break up the old combs into small bits that were soaked in water. After one or two days the pollen could be squeezed out with the fingers. It is generally yellow and swollen by the water. The mashed comb was then dried in the shade, then melted in a sun extractor and never failed to yield a wax nearly as white as if it had been bleached.—L'Apicoltore.

MIXES HIS BEES.

A correspondent claims that bees from different queens mixed together work much better. He therefore swaps combs from one hive to another.—L'Apicoltore.

SPRING INSPECTION.

An early spring inspection is considered by Dr. Metteli a waste of time, as a rule, and that the brood nests are in this way needlessly chilled. If the colonies had wintered well, and had sufficient honey for winter and early brood rearing. The most of the colony, especially the pollen carried in, furnishes enough indication as to the state of the colony.

Later, he adds empty combs at the sides of the brood nest, but does not spread the brood. During the summer, he does not open the brood nests, unless a diminishing population shows that something is wrong. He uses hives (brood nests rather) large enough to contain enough honey to go through the winter and satisfy all the demands of heavy brood rearing in the spring, even if the weather happens to be unfavorable, an inspection to this end is made in the fall and feeding resorted to if necessary.—L'Apicoltore.

PROGRAM FOR THE NATIONAL CONVENTION.

First Day.

EVENING SESSION.—7:30 P. M.

Wax-Rendering Methods and Their Faults. —O. L. Hershiser, Buffalo, N. Y.

Can the Tariff on Comb Honey be Tinkered With to the Advantage of the U. S. Bee-Keeper?—Hildreth and Segelken, New York.

Second Day.

MORNING SESSION.—9:30 A. M.

How Many Bees Shall a Man Keep?—E. D. Townsend, Remus, Mich.

Short Cuts in Bee-Keeping.—M. A. Gill, Longmont, Colo.

Question Box.

AFTERNOON SESSION.—2:00 P. M.

The Control of Increase—L. Stachelhausen, Converse, Texas.

Migratory Bee-Keeping.—R. F. Holterman, Brantford, Canada.

Question Box.

EVENING SESSION.—7:30 P. M.

Contagious Diseases Among Bees and How to Distinguish Them.—Dr. Wm. R.Howard, Ft. Worth, Texas.

Experimental Apiculture.—Dr. E. F. Philips, Washington, D. C.

Third Day.

MORNING SESSION.—9:30 A. M.

The Honey Producers' League.—Can It Help Bee-Keepers?—R. L. Taylor, Lapeer, Mich.

The Business End of Bee-Keeping.—N. E. France, Platteville, Wis.

Question Box.

AFTERNOON SESSION.— 2:00 P. M.

In What Way Can Bee-Keepers Secure Their Supplies at Lower Prices?—W. H. Putnam, River Falls, Wis.

How the Producer and Dealer May Advance their Mutual Interests.—Fred W. Muth, Cincinnati, Ohio.

Question Box.

EVENING SESSION.—7:30 P. M.

What Have We to Hope for from the Non-Swarming Hive?—L. A. Aspinwall, Jackson, Mich.

Poultry Keeping for the Bee-Keeper.—E. T. Abbott, St. Joseph, Mo.

W. Z. HUTCHINSON, Sec.

Youngsville, Pa., Aug., 12, 1905.

Editor Bee-Keeper:

The crop of white honey in the North is small, owing to excessive rains during clover bloom, and the basswood failed to bloom to any extent. Bees have started in nicely on buckwheat, but the wet weather still continues. I have hived seventy-three swarms in my home yard, besides a number returned. W. J. Davis, 1st.

THE

American Bee-Keeper

PUBLISHED MONTHLY.

THE W. T. FALCONER MFG. CO.

Proprietors.

PUBLISHING OFFICE, - - - Fort Pierce Fla.
HOME OFFICE. - - - - - Falconer, N. Y.

HARRY E. HILL, - - - - - - - *Editor*
ARTHUR C. MILLER, - *Associate Editor*

TERMS:

Fifty cents a year in advance; 2 copies 85 cents; 3 copies $1.20; all to be sent to one postoffice.

Postage prepaid in the United States and Canada; 10 cents extra to all countries in the postal union, and 20 cents extra to all other countries.

ADVERTISING RATES:

Fifteen cents per line, 9 words; $2.00 per nch. Five per cent discount for two insertions; seven per cent for three insertions; twenty per cent for twelve insertions.

Matters relating in any way to business should invariably be addressed to

THE AMERICAN BEE-KEEPER,
Falconer, N. Y.

Articles for publication or letters exclusive-y for the editorial department may be addressed to **H. E. HILL,**
Fort Pierce, Fla.

Subscribers receiving their paper in blue wrapper will know that their subscription expires with this number. We hope that you will not delay in favoring us with a renewal.

A red wrapper on your paper indicates that you owe for your subscription. Please give the mattter your early attention.

Editorial.

Do not confine yourself to one bee paper, nor to one paper in any specialty for that matter, but take two or more that you may get a broader and better idea of the subject. Incidentally it will pay.

The editor of the Rural says: "There seems to be two sides to the baby nuclei question." More than that Suh! Good side, bad side, inside, outside, and whose side do you take as the originator, Suh?

Last spring the Agricultural Department sent to various bee-keepers packets of seeds of honey producing plants. Have any of the recipients succeeded in making any grow? Our own experience and that of several others was failure to make any seed germinate.

Our Kansas City correspondents, Messrs. C. C. Clemmons & Co., write, under date September 11, that they are unable to get in a supply of honey to meet the demand, at $3.00 to $3.25 per case for fancy white comb.

Are you troubled with the competition of some negligent, slip-shod neighboring bee-keeper? If you are smart enough to stay in business you will be able either to make him a decent competitor or to induce him to sell to you his bees or his honey.

Mr. Thos. Chantry, who has been harvesting sage honey in the mountains of Southern California this season, is back at Sioux City, Ia., with a carload of his product, to take care of his old customers in that vicinity. Mr. Chantry is one of the hustling bee-keepers who do things.

The Rural Bee-Keeper speaks right out plain about a few of the many faults of the Danzenbaker hive. That is unkind, Bro. Putnam. You should refrain from spoiling a good thing. What if the frames do "turn turtle" when separated from one another, what if they are glued to the hive securely enough to make a saint angry, even though it is the champion bee-killer you should keep from meddling.

Mr. A. Laing says in the August Review: "I say 10-frame hives, because they give stronger colonies, are less likely to swarm, and last, but not least, they seldom require feeding, and this is very important in an out-apiary." The air trembles with the shouts of "heresy." Evidently, Mr. Laing has not learned the commercial possibilities of sugar syrup honey, or, being a Canadian, he scorns the tricks of his Yankee neighbors.

"We have no winter problem; 40 to 50 or more pounds of honey left in a hive at the close of the extracting season, will put the bees through the winter with plenty of young bees and strong in numbers. Colonies left with only 15 to 20 pounds of honey do not breed up so strong for the winter, and come through in a weakened condition." So says Mr. M. H. Mendelson of Southern California. In those parts of the country where we do have a wintering problem the same law holds good, i. e., a colony with abundant stores will be in better condition in the spring than will one scantily supplied, and no amount of spring feeding will make reparation for the harm done by a lean larder.

With but a limited experience upon which to base his judgment, though possessing a knowledge of the failure of others who have tested the Caucasian bee, the editor is inclined to regard them as about the most worthless race that has ever been offered to the American public, and he would, therefore, advise caution in those who contemplate investing in them. The pure Punic stock we have seen are, figuratively speaking, as far above the Caucasians as are the stars of heaven above a duck's track in the mud.

STUDY THE BEE.

Do not worry about new systems or plans of management but study the habits of bees and endeavor to learn the causes of their actions. If you know these things you can readily devise methods suitable to your location be it in Canada or in the tropics.

A knowledge of the fundamental laws of bee life and action is essential to intelligent and continuously successful bee-keeping. The A. B. K. is endeavoring to impress this on its readers and will lend every aid in its power to furthering the discovery of these laws. The defining of even one, hitherto unknown, is worth a library full of books on manipulations.

THE CHICAGO CONVENTION.

As may be noted elsewhere in this number of The Bee-Keeper, the next convention of the National Association will be held in Chicago, in December instead of at San Antonio, Texas, a month earlier as formerly decided. The reason given for the change of location is the fear of yellow fever. Perhaps this is the real and whole cause; but, judging the lives and character (of some of those who have done the most pulling and hauling to get the convention to Chicago) from their own writings, it seems inconsistent that they should have such mortal dread of a fatal malady. Most Southern bee-keepers would prefer a siege of yellow fever to an experience of three December days in Chicago, and we predict a "slimmer" affair there than Texas would have produced.

IN HEDDON'S OWN STYLE.

The Review for August has some exceptionally good articles on production on a large scale. It also contains a deliciously crisp letter from James Heddon, from which we copy the following:

"Friend Hutchinson, not in many a day have I read in the Review a brighter contribution than the one on pages 212 and 213, under your caption of "A Red Hot Letter." The writer writes clearly and to the point, and there is no more fog connected with his opinions than with his manner of expressing them.

"Reference to back numbers of the American Bee Journal and Gleanings will remind you that the "burning" truths your correspondent refers to, were burning and discovered many years ago. I well remember one writer who, after extolling the get-rich-quick profits of bee-keeping was reminded that a truth might be told so many times that it would become a falsehood. Once there was a good profit in honey production, but the big supply dealers had to have it, and with their journals of wide circulation, they soon transferred it from the producing class to the middle men; and it was done by the same old road.

"I have no longer any personal dollar and cent interest in it, as the unknown brood disease has reduced me, within two years, to only 17 colonies. From Washington, (Prof. Frank Benton, proprietor) I received a circular letter inquiring as to whether I had any disease in my apiary; and then, very appropriately (I thought) I wrote to the great Professor all about my experiences and observations relating to the disease mentioned above, but just as I expected, I received no reply; no doubt because the Professor's bureau doesn't contain any information on the subject. The Professor is too busy counting the stripes on a yellow-jacket just discovered by a Hottentot in Timbuctoo. The "Prof." and his Washington "Bureau" are a unique pair. There is nothing commonplace about the whole business, except the salary, which is pretty small, there being so many things the Prof. needs.

Let us all petition congress to raise that salary."

THE "FOOLISH VIRGINS."

In a foot note to a letter in Gleanings for August 15th, Editor Root says: "The young bees hatching from the brood in the old hive were probably attracted to the new hive formerly occupied by their older sisters by the colony odor. But it seems a little strange that they should desert a hive that must have had some brood left, and having the same colony odor, for one having no brood. Perhaps the new hive had a fresher odor." Perhaps also, Brother Root, it is just a little bit, just a tiny bit difficult to reconcile the myriad exceptions to the odor theory. The bees so unfeelingly smash this beloved theory at such inopportune times that one is led to believe that they do not appreciate the difficulty you have in defending their senses. For example, in answering a letter containing the query, "Do virgins go into the wrong hive by mistake?" you say: "The instance cited does not really prove anything either way. Our large experience rearing thousands of queens shows that virgins do get confused just as do young bees, and go into the wrong entrance sometimes. That a queen may purposely go into another entrance, is not denied. When a laying queen has filled all the available cells in a baby nucleus full of eggs, she is quite liable to leave for larger quarters, and the bees may or may not go with her." And yet these poor confused virgins (perhaps "some were wise and some were foolish") are welcomed in their new quarters. Then too, you know, Mr. Alley takes all his virgin queens from the center of the brood nest of one colony and distributes them to different nuclei, turning loose among strangers each poor defenceless little virgin. Strange to say these wanderers from home are given a gentle welcome; in fact, so rarely is one lost that it is correct to define the practice as unfailing. It is not real kind of Mr. Alley to knock such a big hole in the "odor theory," and perhaps we should censure him for doing such "stunts" with his thousands of queens, but then you see he began it so many years before the odor theory was born that really he should be forgiven. It may be barely possible that Mr. Alley's bees are unable to smell, don't you know, for the seacoast air is peculiar.

AN APOLOGY.

In The Bee-Keeper for September, page 189, appeared a criticism on an article in the same issue, by Mr. J. E. Johnson.

A recent letter from Mr. Johnson leads The Bee-Keeper to suspect that it may have gone a little too far in surmising that he so readily absorbs "professional" statements. In fact, it appears, that some of these professors constitute an important part of the opposition which Mr. Johnson meets in his scientific researches and experiments.

Mr. Johnson also avers that he had no intention of accusing the manufacturers of adulteration; but, in view of Prof. Wiley's accusations, sought to incite an investigation in the interests of truth and justice.

The editorial comment was the result of a misconstruction upon the purport of Mr. Johnson's article, and we are glad to be corrected and to tender our apology for having misunderstood the implication and the consequent erroneous comment.

NATURAL LAW.

Extract from an Article by General D. L. Adair.

"Some of our earlier authors in their inability to account for every motion of the bees as the result of instinct, in their enthusiastic admiration have tried hard to prove them endowed with reason. It seems to me that no one who has experience enough to see that under the same circumstances their actions are always the same, can long indulge in such a fiction. To attribute to them passions and emotions like ours is simply absurd.

"In all that bees do they are guided alone by the immutable laws of nature that they have no power of resisting and for that reason all they do is perfect. Under the same conditions the same impulse is always excited. Not so with reasonable beings. No two communities have the same habits; no two governments the same laws; no two mechanics work alike, except as they learn from each other. However much such authors may have done for the advancement of apiculture, their teachings in this respect are almost as great a clog to it as are the old superstitions of those who leave it all to luck."

THE IRISH-ENGLISH CONTROVERSY.

Dowthwaite, Keswick, Eng.,
Sept. 5, 1905.

Editors American Bee-Keeper:

My attention has been drawn to page 118 of your June issue. A letter appears from Mr. Thos. I. Weston, (vice chairman of the British Bee-Keepers' Association). I have not seen the March issue referred to, but must protest against Mr Weston's groundless attempt to belittle the Irish Bee-Keepers' Association. I have been in close touch with this latter association since 1903, as enclosed report shows, and am in a position to say positively that there are no internal quarrels, nor anything but entire unanimity in its working. Also all its affiliated associations are moving in accord. Two of the Irish associations, the County Cork and County Dublin, which are not affiliated, are also moving for the same bill. Sixteen county councils in Ireland have now approved the bill and progress will continue to be made. The "Irish Bee Journal" is the official organ of its association, and speaks for it (not being in the anomalous position held by the British Bee Journal.) Back numbers of the Irish journal dating from December 9, 1903, giving account of this move for legislation, are the best answer also to Mr. Weston's charge that the Irish association is not working in accord with its government department; and the result of its deputation, referred to by Mr. Weston, was that the department expressed an opinion that bee-keeping should be put under the working of the "Diseases of Animals Act," which is practically the object of the proposed bill.

There has been friction with the British Bee-Keepers' Association unfortunately, but that is no reason for an uncalled for attack on the Irish Bee-Keepers' Association.

Few will deny that a united move with Ireland will have more chance of success with the government than independent moves. It is this fact of the independent existence of the Irish B. K. A. as apart from the British B. K. A. which is doubtless the cause of Mr. Weston's letter.

Yours faithfully,

GEORGE M. SAUNDERS.
Honorable Sec. and Treas.

THE LAW ON THE BEES.

Board of Health Orders Them Removed from Vesey Street Building.

Springfield, O., Aug. 31.—Papers were served today on the A. I. Root Company, of Medina, Ohio, the largest bee dealers in the world, ordering them to remove at once from the roof of a building at No. 44 Vesey street New York, more than ten million bees which are kept at an agency of the Root company at that place. The order is issued by the Board of Health of New York city.

The complaint was made to the board by a candy dealer about a block from the agency that the bees ate his store of candy and at the same time stung his employes. The company has already decided to ignore the order of the board of health and to fight the case in the courts if necessary.

The candy man telephoned to W A. Clark, Health Commissioner Darlington's private secretary, last Saturday and requested that inspectors be sent immediately to disperse an army of bees that occupied twenty eight hives on the roof of No. 4 Vesey street. He said that the bees were causing him a considerable financial loss.—New York Tribune.

"The Honey-Money Stories" is the title of a 64-page booklet just issued by Geo. W. York & Co., Chicago. It is unique in style and is calculated to do missionary work among the masses in the interest of the honey business It presents thirty-three illustrations, is beautifully printed on plated stock and sells for 25 cents. It is a book that will not fail to interest every bee-keeper; nor any one else, for that matter. It is cheap at a "quarter," and those who send to the publishers for one at 334 Dearborn street, Chicago, will get their money's worth.

The world is a looking glass,
Wherein ourselves are shown,
Kindness for kindness, cheer for cheer,
Coldness for gloom, repulse for fear—
To every soul its own.
We can not change the world a whit,
Only ourselves which look in it.
—Susan Coolidge.

"I have found you an argument; I am not obliged to find you an understanding."—Johnson.

HONEY AND BEESWAX MARKET.

Buffalo, Sept. 5.—We quote fancy white new comb honey at 14-15c; No. 2, 11-12c; No. 3, 8-10c. Old stock very dull and slow sale at low prices. Demand for new crop improving. Batterson & Co.

Kansas City, Mo., Sept. 7.—The market on white comb honey, fancy, is very strong at present, the demand exceeding the supply; 24 section cases selling at $3.00. Extracted, fancy white, selling at 6½c and Amber and other grades at 5c up. Beeswax 28c per pound. We look for the market to continue firm. C. C. Clemons & Co.

Cincinnati, Sept. 7.—There is little to report since our quotation two weeks ago. The supply of both comb and extracted honey is fair, and the demand is good. We offer extracted honey as follows Amber, in barrels and cans at 5¾-6½c, respectively. White clover, at 7-8½c. Fancy white comb honey at 12-15c. Beeswax is wanted at 29c.

The Fred W. Muth Co.
51 Walnut St

Denver, July 31.—No new honey offered; crop will be very light. There is plenty of last season's stock to supply the demand. We quote our market today: No. 1, $2.20 to $2.40 per case; No. 2, $1.75 to $2.00; extracted, 6½ to 7½; beeswax, 25c.

Colorado Honey Producers Association.
1440 Market St.

Chicago Aug. 4.—Fancy white, 14; No. 1 white, 13@13½; fancy amber, 11@12; No. 1 amber, 9@10; fancy dark, 10; No. 1 dark, 9; white extracted, 6@7; amber 5@6; dark, 5@5½; beeswax, 28. The new crop is appearing and selling in a fair way considering that it is midsummer.

R. A. Burnett & Co.,

Chicago, Aug. 18.—The demand has absorbed all the offerings of fancy and A No. 1 grades of white comb honey at 14c, while No. 1 has sold at 13@13½c. No call at present for other than the best grade, it really being difficult to place what ordinarily is called No. 1. Extracted white, 6@7c; amber, light and dark, 5@6c; beeswax 28c per lb. R. A. Burnett & Co.

199 S. Water St.

The next annual convention of the National Bee-Keepers' Association will be held at San Antonio, Texas, October 31st to November 1st.

"Where words are scarce they're seldom spent in vain."—Shakespeare.

Four New Departments

I publish and recommend to you **THE RURAL BEE-KEEPER**, the best all-round $1.00 monthly bee journal in America. On trial three months for this ad. with 25c. Or send us 50c for a three months' trial and your name and address on a two-line rubber stamp (self-inking pad 25c extra.) Or

Send us $1.50 and get the Rural Bee Keeper one year

and an untested Italian queen bee. Sample copy free. Agents get liberal terms.

We count that day lost which does not show some improvement in **THE RURAL BEE-KEEPER.** So soon as we can find the right party to conduct the departments, we will establish a department for advanced bee-keepers and a kindergarten for the new beginners. We also want to benefit our readers in the West and want to establish a "Department of the Middle West" and a "Pacific Coast Department." Our Foreign and Southern Departments are very gratifying to us.

We solicit your subscription and your moral support.

W. H. PUTNAM
RIVER FALLS, WISCONSIN

Are You Interested?

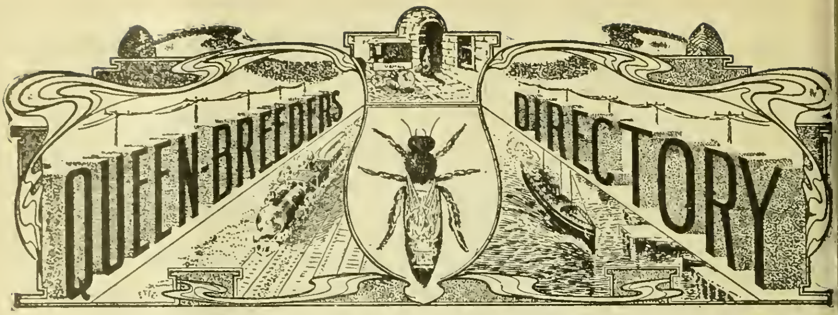
The New South today holds forth greater inducements to the homeseeker and investor than any other portion of America.

Florida leads all other Southern states in the matter of inviting propositions to those who seek a genial, healthful climate and profitable business opportunities.

St. Lucie is the banner county of Florida, when it comes to home-making and money-making facilities, and its healthfulness is unsurpassed anywhere on earth.

The St. Lucie County Tribune is the—well, modesty forbids our repeating the public verdict in regard to The Tribune. It is published weekly at Fort Pierce, the county seat, at $1.00 a year. Three months' trial subscription, 25c, Sample copy for the asking. If you are interested in Florida, a postal card inquiry will bring it. Write today.

St. Lucie County Tribune
FORT PIERCE, FLA.



QUEEN-BREEDERS DIRECTORY

ONE-HALF INCH SPACE ONE YEAR ON THIS PAGE, $3.00.

W. J. DAVIS, 1st, YOUNGSVILLE, PA., breeder of choice Italian Bees and Queens Quality, not quantity, is my motto.

DEWEY'S HARDY HONEY GATHERERS.—Reared under swarming impulse throughout the year. Large, strong, healthy. Send for card, 'Can I Control Swarming.' Original. Untested, 75c., 6 for $5.00; tested, $1.50, 6 for $5.00. Choice, $2.50. High grade breeders, $2.00 to $10. **E. H. DEWEY, Gt. Barrington, Mass.**

QUEENS HERE.—We are still asking you to give us your trade. We sell Italians, Goldens and Carniolans at 75c for untested and $1.00 for tested. Prices on quantities and nuclei upon application. **JOHN W. PHARR, Berclair, Texas.** Jan6

SWARTHMORE APIARIES, SWARTHMOORE, PA.—Our bees and queens are the brightest Italians procurable. Satisfaction guaranteed. Correspondence in English, French, German and Spanish. Shipments to all parts of the world.

W. W. CARY & SON, LYONSVILLE, MASS.—Breeders of choice Italian bees and queens. Imported Leather and Root's Red Clover strains. Catalogue and price list **free.**

MOORE'S LONG-TONGUED STRAIN of Italians become more and more popular each year. Those who have tested them know why. Descriptive circular free to all. Write **J. P. MOORE, L. Box 1, Morgan, Ky.**

HONEY QUEENS AND BEES FOR SALE.—I extracted 300 pounds per colony in 1903. **THOS. WORTHINGTON, Leota, Miss.** Aug5

PUNIC BEES.—All other races are discarded, after trial of these wonderful bees. Particulars post free. **JOHN HEWITT & CO., Sheffield, England.** Jan6

THE FRED W. MUTH CO., 51 Walnut St. Cincinnati, O. Standard Bred Red Clove Three-banded Queens, Golden Italians an Carniolans. Safe arrival guaranteed. Sen for circular.

THE A. I. ROOT CO., Medina, O.—Breeder of Italian bees and queens.

QUEENS from Jamaica any day in the year Untested, 66c.; tested, $1.00; select tested $1.50. Our queens are reared from the ver finest strains. **GEO. W. PHILLIPS, Sav-La Mar P. O., Jamaica, W. I.** 5-

D. J. BLOCHER, Pearl City, Il.—Breeder o Fine Italian Bees and Queens. Our stoc speaks for itself. Safe arrival of all stoc guaranteed. Free information. Jan

LAWRENCE C. MILLER has sold out hi "Providence Queen" business to **Cull & Williams**, Providence, R. I. See large ad elsewhere.

C. H. W. WEBER, Cincinnati, O.—(Cor. Central and Freeman Aves.)—Golden Yellow Red Clover and Carniolan queens, bred fro select mothers in separate apiaries.

JOHN M. DAVIS, Spring Hill, Tenn.—Has greatly enlarged and improved his queen-rearing facilities. Two unrelated Carniolans and a dark leather Italian lately imported. My own strains of three-band and golden; "Moore's" long-tongue; Doolittle's golden; all selects. Carniolans mated to Italian drones when desired. No disease. Circular free.

QUIRIN-THE-QUEEN-BREEDER, has an exceptionally hardy strain of Italian bees; they wintered on their summer stands within a few miles of bleak Lake Erie . Send for **free circular.** Bellevue, Ohio. 5-5

HONEY DEALERS' DIRECTORY

☞Under this heading will be inserted, for reliable dealers, two lines one year for $1.25. Additional words, 12c a word. No announcement can be accepted for less than one year at these rates.☜

OHIO.

C. H. W. WEBER, Freeman and Central Aves., Cincinnati, Ohio. If for sale, mail sample, and state price expected, delivered in Cincinnati. If in want, write for prices, and state quality and quantity desired. 5-5

WE are always in the market for extracted honey, as we sell unlimited quantities. Send us a sample and your best price delivered here. **The Fred W. Muth Co., 51 Walnut St., Cincinnti, O.** 5-5

COLORADO.

THE COLORADO HONEY PRODUCERS' ASSOCIATION, 1440 Market St., Denver, Colo. 5

ILLINOIS.

R. A. BURNETT & CO., 199 South Water Street, Chicago. 5-5

Cent-a-Word Column.

AGENTS WANTED.—To sell advertising novelties, good commission allowed. Send for catalogue and terms. American Manufacturing Concern, Falconer, N. Y.

THE BUSY MAN'S METHOD OF REARING GOOD QUEENS.—This leaflet describes the method used in rearing the Hardy Honey Gatherers (read elsewhere), and if carefully followed will produce queens of great merit. No loss of brood, no cell-cups, and but littte time required. Large queens under swarming impulse. Nothing artificial about it. Every queen-breeder needs it. Price 25 cents. **E. H. DEWEY, Gt. Barrington, Mass.**

ITALIAN and CARNIOLAN QUEENS.—The Bankston Baby Nucleus and the Bankston nursery cage. Untested queens 50 cents each; tested, 75c. Baby nucleus, nailed ready for use, 35 cents. Nursery cage, 35 cents by mail with printed instructions. **C. B. BANKSTON, Milano, Milam County, Texas.** Sep5

INCREASE is a handsome little book telling how to form new colonies without breaking working stocks. A simple, sure satisfactory plan. 25c. Baby Nuclei tells how to mate many queens from sections with a mere handful of bees. 42 pages, 20 pictures; plain and simple plan. 50c. Queens and queen rearing outfits for sale. Golden all-over and Caucasian Queens. Circulars free. **E. L. PRATT, Swarthmore, Pa.**

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The American Bee-Keeper

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Cincinnati, O., Buffalo, N. Y., Atlanta, Ga.
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Nov. 5. LaCrosse, Wis.

Our Special Premium Offer.

We have been successful in closing a contract with the Selden Pen Mfg. Co. of New York, whereby for a limited time we can supply a guaranteed

$ 2.00 Gold Fountain Pen.

"THE CELTRIC MODEL 1"

and the American Bee-Keeper one year for only **90 cents**, to every subscriber, OLD or NEW. The pen will be forwarded immediately upon receipt of the money. It is made of the best quality of hard rubber in four-parts, and fitted with a guaranteed irridium pointed 14-k GOLD PEN. The "fountain" is throughout of the simplest construction and can not get out of order, overflow, or fail to supply ink to the nib.

"A Fountain Pen is a Necessity of The Twentieth Century."

It dispenses with the inconvenient inkstand and is always ready for use.

'THE CELTRIC MODEL 1' bears the manufacturer's guarantee that the pen is **solid GOLD**, 14-k fine. If does not prove satisfactory in every way we will exchange it for another, or return the fifty cents additional upon return of the pen.

This is an unusual opportunity to secure, at a very low price, an article of superior quality that is coming to be essential to the comfort and convenience of every one who writes. **REMEMBER** that the offer is for a short time only.

THE AMERICAN BEE-KEEPER, Falconer, N. Y.

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BOSTON

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Catalog Price on

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Medallions "Peuro or Pearl" New Medallions, Quick sellers. Big money. Write at once. Special territory given. Largest Medallion Co. in the World. Agents' supplies. Novelties up-to-date. Write now.

Universal Manufacturing Co.,
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Read This and Do It Quick

All One Year $1.40. Without Gleanings **80 Cents.**	The Modern Farmer, Green's Fruit Grower, Agricultural Epitomist, The Mayflower and Ten Beautiful Flowering Bulbs, Gleanings in Bee Culture, American Bee-Keeper.

Without Gleanings and American Bee-Keeper 50c. Good only a short time. Address

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Box 15. The clean farm paper.

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Every person who keeps pigeons, Belgian hares, cavies, dogs, cats or a pet of any kind to send for a free sample of the

PET STOCK PAPER

Address Box 20. - - - - - - York, Pa.

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THE BEST YET.

I wish to announce to my patrons and other interested persons that I have sold my queen business, breeding stock and trade name to Messrs. Cull & Williams of this city.

This firm handles a full line of beekeepers' supplies, bees and queens, and I ask for them your good will and patronage.

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Three Months for Only 20 Cents.
To a New Subscriber.

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It is the only *weekly* bee paper in America. Those who write for it are among the most extensive and successful bee-keepers in the world. Many of them produce honey by the ton, and make money at the business, hence their experience is valuable.

Among the Departments Represented in the Bee Journal Are These:

Editorial Notes and Comments; Miscellaneous News Items; Contributed Special Articles: Opinions of Some Experts; Proceedings of Conventions; Our Bee-Keeping Sisters; Mr. Hasty's Afterthoughts; Dr. Miller's Answers to Questions; Honey and Beeswax Market Quotations.

Every bee-keeper, whether having one colony or 100, should read the old American Bee Journal every week.

Only $1.00 a year; or 20 cents for a *trial trip* of three months, (13 copies), to a new subscriber. Sample copy free. Ask for it.

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Big Song Book

"Polly, I Love But You," words and music; "Piking the Pike," "Just Because I'm From Missouri," "Hiawatha," "Navajo," "Bedelia," "Josie," "Only a Factory Girl," "Flirting at the Seashore," "The Little Brown Man of Japan," "Come Down, Miss Malinda," "Ma Ragtime Ebony Belle," and 44 other popular songs, all in one book, and sent postpaid for only **10 cents** We will also send a coupon good for 10 cents to every one mentioning in what paper they saw this ad.

This is a special offer to introduce our goods, so send at once.

H. D. LEADER CO.
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BIG MAGAZINE ONE YEAR FOR TEN CENTS

Send us 10 cents in silver, together with the names of ten persons who get mail at your postoffice who are interested in **MUSIC**, and we will send you our handsome magazine one year. We receive hundreds of new subscriptions daily from persons who think our magazine a bigger bargain than Harper's, Munsey's, Ladies' Home Journal, or McClure's. This is a special offer for a short time only.

OUR SUBSCRIPTION PRICE MAY ADVANCE TO $1 PER YEAR SOON

ADDRESS

BERGES PUBLISHING CO.
Dept. H. D. Grand Rapids, Mich.

Beeswax Wanted

We will pay 28 cents cash or 30 cents in goods for good quality of Beeswax, freight paid to Falconer, N. Y. If you have any, ship it to us at once. Prices subject to change without notice.

THE W. T. FALCONER MFG CO.

3 and 5-Banded Italian and Carniolan Queens.

Say friends, you who have supported us during the past season, we desire to express our thanks for your patronage in the past, and respectfully solicit a continuance of your valued favors through the season of 1904.

Our queens now stand upon their merits and former record. We are preparing for next season, and seeking the patronage of large apiarists and dealers. We do not claim that our queens are superior to all others, but that they are as good as the best. We will furnish from one to a thousand at the following prices: Tested of either race, $1; one untested, 75c., 5 for $3.25, 10 for $6, 15 for $8.25, 25 for $12.50, 50 for $23.50, 100 for $45.

For descriptive circulars address,

JOHN W. PHARR, Prop.,

New Century Queen Rearing Co., Berclair, Goliad Co., Texas.

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We carry a full line of FALCONER'S BEE-KEEPERS' SUPPLIES, and that means THE BEST, and sell them at factory prices, f.o.b. Savannah, Ga. Order from us and save freight charges. Catalogue free for the asking.

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100 Wanted to raise Belgians

Send for particulars and sample copy of the only

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AGENTS Wanted in every town for our **Washing Machines.**

You can double your money every time you sell one
nd they sell easily. We have sold over 150,000 in the last fourteen years. They
re cheaper than ever. Catalogue Free.

THE EMPIRE WASHER CO., Jamestown, N.Y.

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New Books for the Home.

owe — "The Expectant Mother," 12mo., net .50
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4-16 Cherry St. - - Philadelphia, Pa.

National Bee-Keepers' Association,

The largest bee-keepers' society in the world.
Organized to protect and promote the interests of its members.

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N. E. FRANCE, Platteville, Wis.,
General Manager and Treasure

Sunshine is gaining admiration as a popular literary family MAGAZINE.

It entertains its readers with good, hort stories, sketches and poems by the most famous authors of the day and is a magazine of superior merit.
It is a welcome visitor in every home.

Price 25 cents a year.

We wish to have our magazine in your vicinity and as a special offer for new readers we will send you

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Think of it, less than one cent a copy. Can't you act as our agent?

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Anyone sending a sketch and description may quickly ascertain our opinion free whether an invention is probably patentable. Communications strictly confidential. Handbook on Patents sent free. Oldest agency for securing patents.
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How we make our hens pay 400 per cent. profit, new system, our own method, fully explained in our Illustrated Poultry Book, which contains **Poultry Keepers' Acc't and Egg Record** showing gains or losses every month for one year. **Worth 25 cts,** sent to you for **10c.** if you will send names of 5 poultry keepers with your order. Address,
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Are You Looking for a Home?

No farmer should think of buying land before seeing a copy of THE FARM AND REAL ESTATE JOURNAL. It contains the largest list of lands for sale of any paper published in Iowa. Reaches 30,000 readers each issue, and is one of the best advertising mediums to reach the farmers and the Homeseekers that you can advertise in. For 75c. we will mail you the Journal for 1 year, or for ten cents in silver or stamps we will send you the Journal 2 months on trial. Address,

Farm and Real Estate Journal,

TRAER, TAMA CO., IOWA.
10-tf.

When writing to advertisers please
ention The American Bee-Keeper.

SEASONABLE

Glass Honey-Packages.

Anticipating a demand for honey jars and bottles we have put in two carloads of stock before the summer shut-down of the glass factories, so that we are prepared to furnish the various jars listed in our catalog. We have also a few odds and ends of stock, such as we formerly listed, which we offer, to close out, as follows. We cannot duplicate these when present stock is sold:

1-lb. tin-top tumblers, No. 789, 5 bbls. of 200 each, at $4.50 per bbl.

1 1-2-lb. tin-top glass pails, No. 778, 2 bbls. of 100 each, at $5.00 per bbl.

Large lb. tin-top glass pail, No. 777, 1 bbl. of 150, $5.00.

Small lb. tin-top glass pail, No. 776, 1 bbl. of 200, $5.50.

1-lb. Oaken Bucket, tin top, with wire bale, 1 bbl. of 150, for $5.00.

These prices are all a dollar a barrel less than we used to sell these tumblers and pails at. We have also a little loose stock which we will pack and include at the same rate.

Special Price on Tin Cans.

We recently secured a special bargain in half-gallon square cans. They are choice bright stock; but as the pattern differed slightly from the regular one they are now making, they closed them out at a special price. We have also an overstock of quart oblong square cans. While this stock lasts we will make the following prices for shipment from Medina only:

1-4-gal. oblong square cans with 1 1-2-inch screw, $5.00 per 100; $45.00 per 1000.

1-2-gal. square cans with 1-inch screws, $6.00 per 100.

1-2-gal. square cans with 1 1-4-inch screws, $6.50 per 100.

1-2-gal. square cans with 1 1-2 inch screws, $7.00 per 100.

In 500 lots, 50c per 100 less.

We have also a good stock of one- and five-gallon cans at regular prices.

Second-Hand Five-Gallon Cans.

We have to offer a quantity of second-hand five-gallon honey cans in good condition for use again, especially for amber or low grades of honey. We offer the best of them at $4.50 for 10 boxes of
cans each; $10.00 for 25 boxes. We have so
which are not so bright, and yet are honey-ti
that we will furnish at 10 cents a box less.
boxes in which the cans are shipped are
second-hand, but will be put in good condi
when shipped.

Wide-Mouth Mason Fruit-Jars.

The carload price on Mason fruit jars is ov
dollar a gross higher this year than last.
carried over quite a large stock, which we
sell at the same prices as heretofore—namely:

Pint.....doz. 52c.	6 doz.........$3.00	12 doz.......$
Quart..doz. 55c.	6 doz......... 3.10	12 doz......
1-2-gal..doz. 75c.	6 doz......... 4.10	12 doz......

Triumph wrench, 15c each.

☞ Ball's waxed rings, 5c per dozen. These
far superior to rubber rings for fruit jars,
cheaper.

In addition to the regular style of Mason
we have a stock of wide-mouth special Mas
with 3-inch openings. These are especially
sirable for canning large fruit whole, or for p
ing chunk comb honey. These jars are of e
quality, and cost $1.65 per gross more than
regular pattern. As we do not list them we o
our present stock at an advance of 10c per do
$1.20 per gross, on any size. They have zinc c
and rubber rings. We have no wax rings of
right size to fit these jars. They are a bar
at this price.

Caucasian Queens.

We can spare a limited number of impo
Caucasian queens, received direct from the
breeders in Caucasus. Prices as follows:

Extra select Caucasian imported queens, $1
Select Caucasian imported queen, . . . 1
Extra select untested Caucasian-Italian queens, from Caucasian mothers mated with Italian drones . . . .
Select untested Caucasian-Italian queens, from Caucasian mothers mated with Italian drones . . . . .

Orders filled in rotation. Delivery beg
about July 15.

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THE A. I. ROOT COMPANY

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THE AMERICAN BEE-KEEPER.

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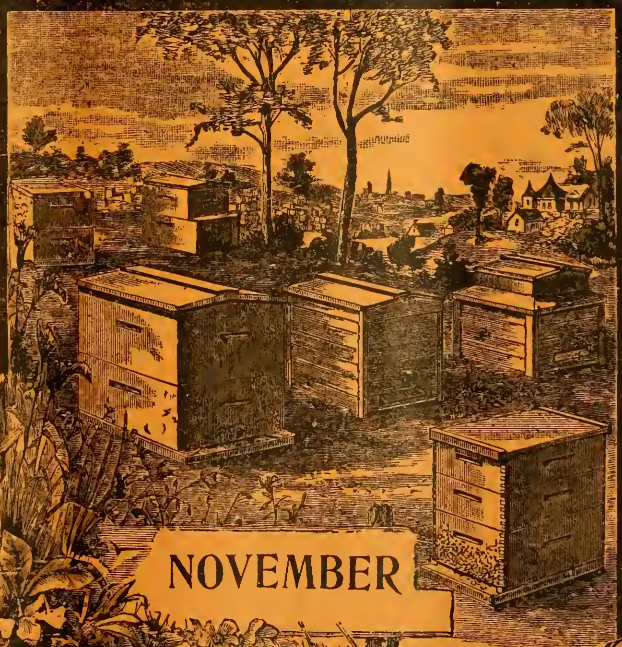
BEES AND
HONEY


MURRAY-HEISS, CLEVELAND O.

NOVEMBER
1905
VOL. XV
NO. 11

Entered at the Postoffice, Fort Pierce, Fla., as second-class matter.

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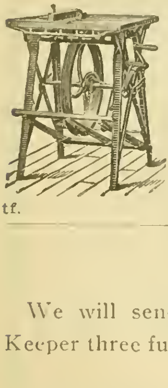

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THE AMERICAN BEE-KEEPER

Vol. XV NOVEMBER, 1905. No. 11

An Autumn Prayer.

WHEN the dead leaves quiver earthward in the twilight of the year,
Comes the time of love and dreaming, when the days of days appear;
Purpling distance, mellowing sunshine, trees aflame with red and gold,
Air brimful of life's elixir-nectar on Olympia old
Was as water in its weakness when compared with this, methinks.
And I wish life's chain were endless with sweet days like this for links.
Music greets my every footstep in the dead leaves rustling here—
When the ripe leaves quiver earthward in the twilight of the year.

When the leaves come trembling earthward in the gloaming of the year,
Then this life's perennial sweetness seems a thousand times more dear;
Yet the million gorgeous death scenes that emblazon every wood
As the leaves in splendid shroudings quit their dying brotherhood
To return to earth that gave them in the spring so tearfully
Breathe a prayer like an incense through the very heart of me;
"When life's sap is flowing feebly and my rest is drawing near,
May my time for trembling earthward be the gloaming of the year."

—S. W. Gillilan, in Baltimore American.

FEEDING SUGAR SYRUP.

Its Evil Results Thought to Be Imaginary.

By E. F. Atwater.

FOR SOME TIME I have noted with scant patience the articles and comments on sugar-feeding in "The American Bee-Keeper." I know that you desire to give a fair hearing to both sides of this question, so I shall rush in "where angels fear to tread"(?)

I seldom feed any sugar, in fact, seldom feed at all, and prefer to feed honey, which is usually cheaper than sugar in a wholesale way. If foul brood were common here I should feed sugar when necessary, in spite of the increased expense. Five seasons in Idaho, with from 180 to 650 colonies I have not fed over $20. worth of sugar, so don't accuse me of being "touched in a tender spot."

The editor who refused A. C. Miller's "criticism of an article on feeding" because "it seemed unwise to open a discussion along such lines," did just right, in my opinion.

"The suspicions of the public are already aroused;" certainly, thanks in the main to the infamous "Wiley lie," and if the bee-keepers were to abstain from sugar-feeding and the use of comb foundation for a century public confidence would not be restored, so long as fraud and adulteration are practiced on other foods. These articles condemning sugar-feeding lack proof of the effects claimed. How like Mr. Miller this sounds: "When it comes to stimulative feeding, and feeding for winter stores, there is no question in my mind that honey is the better food both from the point of utility and from that of ethics." No doubt that settles it. Admitted in regard to stimulative feeding, but for wintering the evidence is largely on the other side, as A. I. Root, Capt. Hetherington, E. D. Towsend, James Heddon and others. "Furthermore, countenancing of the feeding practice affords an excellent cover for the dishonest man to feed purposely for sale as honey." I don't believe a word of it. I don't believe it can be done at a profit, or ever was done at a profit, or will be done. I happen to know something of the results of some experiments along this line. These tests were conducted in a state where climatic conditions were favorable, and by a well educated, skillful and practical bee-keeper, whom I well know. The results showed a loss, an amount of sugar out of all proportion to the product of "honey," was fed, and colonies required constant additions of bees from other colonies to keep up their strength. Soon the bees refused to do any more than live "from hand to mouth" on the sugar syrup, and would not store it until at last half honey had to be added to it. I have no doubt that this ground has been gone over by many, and not necessarily from any wrong motive. Now let A. C. M. bring forward the proofs that Mr. Boardman and others have "more or less syrup in their surplus honey."

Mr. Miller seems to view with pity or scorn the indefiniteness of the articles written by the various bee-keepers whose contributions enrich our journals, so "unscientific" you know. Mr. Miller's articles on sugar feeding are nothing if not indefinite; they contain no proofs, no indication that any one has any proofs. See how he misquotes Doolittle, by giving the following, without specifying the conditions under which this happens: Mr. Doolittle says, that bees once started in the sections, the honey stored in the combs below will be carried to the sections as fast as the queen needs the room for egg-laying, and further, that within fifteen days after the bees occupy the sections the brood chamber is packed with brood except for a little pollen and honey in the extreme upper corners of the frames, and the sections are filled with honey."

If I am not mistaken, Doolittle never gave that as a general rule, but intended it to apply only when a queen (often a young one) gets to laying after the brood nest has become clogged with honey, as when swarming has been prevented by unqueening or caging the queen, and the brood-nest filled with honey, or, when a colony has swarmed, the brood being about all hatched and the combs filled with honey. Then when the young queen begins laying no doubt, the honey goes into the supers until she has a fair brood nest.

Now in regard to the use of foundation: The masses would seldom taste comb honey at a reasonable price were it to be produced without foundation. Better a sheet of foundation in every section, and fine satisfactory comb honey on tens of thousands of tables, than a limited market for an expensive, strictly "all bee-built comb honey among the gilded parasites of high finance."

This discussion of a more or less imaginary trace of sugar syrup in comb honey does more harm than good, especially when no proofs have been offered of the evil results of sugar feeding for stimulation or winter stores.

Boise, Idaho, Sept. 18, 1905.

Mr. Miller's Reply.

Mr. Atwater's article bristles with indignation but his very impatience has caused him to mislead himself. If he will re-read my article at which he takes such offence, he will note in the first paragraph that I distinctly disavow the implication that even a considerable portion of the bee-keepers feed sugar syrup with evil intent. The point I made, and which I emphasize now, is that the feeding of sugar syrup to bees is inimical to the best good of honey producers; that the widespread advocacy of such practices through both our journals and our text books is the basis for most of the public belief in the use of sugar to "make" honey; that sugar fed to the bees finds its way into the surplus honey to a greater or lesser extent; that so long as we feed it to our bees we cannot honestly assert that our honey is absolutely pure, and that until we can do that we are not justified in raising our voice against persons who add more syrup to it after it leaves our hands. We cannot rail against adulterated foods until we can prove our own products to be above suspicion.

I further reassert that comb foundation in comb honey often attracts the attention of the consumer and lends color to the stories of artificial comb, and I base this statement on what consumers have said to me. The "gilded parasites of high finance" are as a rule, sufficiently well posted on matters in general to know of comb foundation. It is the good common people who are made suspicious. Mr. Atwater claims that it is impossible to feed sugar syrup continuously to bees without their complete demoralization. In refutation of which statement I would refer him to Gleanings of September 15th, pages 955 and 956.

To this I will add that I have seen sugar-feeding successfully carried out and have seen in the aggregate thousands of pounds of "honey" thus produced. How it is done of course it is eminently unwise to repeat here.

In regard to the question as to how it is known that the sugar syrup stored in brood combs finds its way into the surplus combs: First, I would refer Mr. A. to the common knowledge of the way bees shift honey about. Second, I would refer him to Mr. Green and to the quotations from Mr. Doolittle. I regret that Mr. Atwater does not believe it, but the quotation is accurate though not verbatim, the original being too long. Conditions under which bees did thus, were with wintered-over queens in a restricted brood nest, one about the equivalent of an 8 L frame hive. Third, I have myself proved the presence of syrup in surplus honey, and in so doing substantiated the work of a careful experimenter. I am not at liberty to detail these experiments because the methods employed are not my own and the gentleman who told me requested that I should not make them public.

Regarding my statements as to the comparative value of honey and sugar for a winter food, I did not consider it necessary to then state my reasons which have appeared at length at different times. But as Mr. Atwater questions it, I may fittingly say here that the value of a food for winter depends upon the quantity and availability of the life preserving elements in a given amount of bulk. Cane sugar properly fed at a proper time has been proved to be a good food, good so far as the bees are concerned. But there is no unanimity of opinion as to when it should be fed or what proportions of sugar and water should be used, (see Gleanings, Sept. 15th, page 955, and Oct. 1st, page 1006), hence it is quite as often used in a harmful as a helpful way. Early honey is generally acknowledged to be an ideal winter food. It contains a high per cent of the sugars and has been made ready by the bees for immediate assimilation. Stored sugar syrups are often not in such condition and hence cannot be used by the bees without the expenditure of vitality at a time when they ill can spare it. Furthermore, if any of the stored syrup is on hand when the surplus honey flow begins there is a possibility of its being mixed therein. Under proper conditions—which I recently explained in these columns—fall gathered honey is quite as good as that gathered in the summer, which fact I have demonstrated to my own satisfaction during my twenty and odd years of bee-keeping. From all of which I think I am justified in calling honey the better food.

Regarding the propriety of discussing the evil side of sugar-feeding, I maintain that it is not only proper but necessary, made so by the persistent publicity given by most of the bee papers to the other side of the subject. If there is any fault to be found it is against the promulgators of the vicious doctrine.

Arthur C. Miller.

AGREES WITH MR. MILLER.

Sugar Feeding Should be Abandoned.

By Dr. W. R. Claussen.

Editor Bee-Keeper:

WE HAVE now gotten the thing down "pat." There is no earthly reason why we should not have bumper crops of sugar syrup, nicely stored in well sealed combs(?)

The September 15th issue of "Glea ings" gives us full directions. Ju see! The whole number fairl bristles with advice on sugar syru feeding. There is, besides, severa minor paragraphs; such as directio for making the syrup, feeders, etc over one page of the editorial devote to feeding. In fact, the editor say he has succeeded in producing almos all the conditions of an artifici honey flow.

Now, Mr. Hill, I should say he ha had complete success in producing natural syrup flow. What on eart are our bee journals for? and wha business has the honey producer t "monkey" with sugar syrup? Th editor of Gleanings says you can e tract during a dearth of honey by fee ing; in this case he advises man diluted honeys. Well, now, I hav just finished taking off supers an extracting. There is absolutely n honey to be found in the fields; bu we have had no trouble whateve A board with a Porter bee escape i placed on the hives late in the afte noon; supers taken off the next mor ing, escape-boards removed in th afternoon and the extracting done day or two after. The honey hous of course, is beeproof; but there wer not a dozen bees hovering around th building. How many honey producer have honey on hand at extractin time to feed? Not very many. Th next thing would be a recourse t the sugar barrel. Say, Mr. Hill, wonder if the Root Co. has bough a sugar plantation? I expect to hea from the Deacon's spirit—bless hi memory—on this sugar question. think the less advice our bee journal give on sugar feeding the better th honey producers' interest will b served. As long as cane sugar is use in the apiary we must expect the public to mistrust us. We had to feed one out of 58 colonies this fall. It was a late swarm; but instead of feeding sugar syrup or opening the hive to place honey in the broodnest, we placed an extracting super with well sealed combs on the hive and there it will stay till spring.

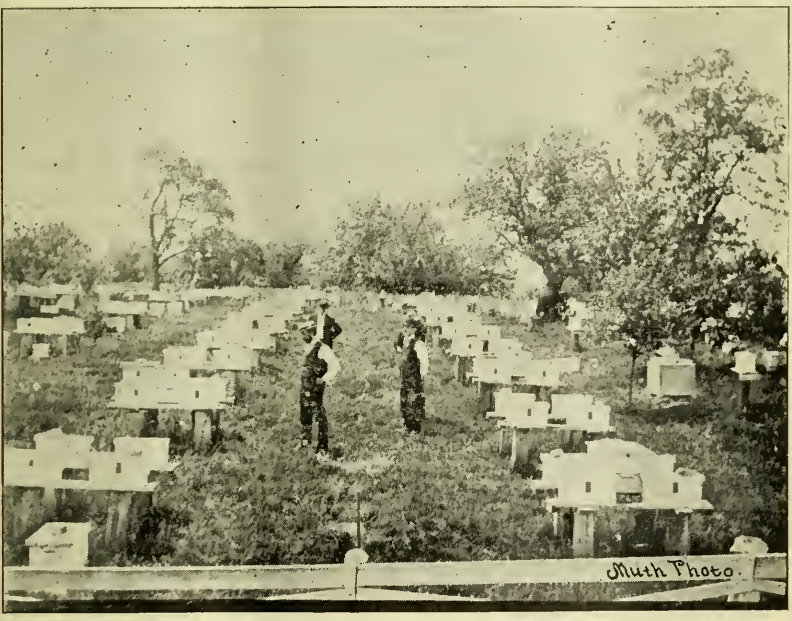
If it is necessary for queen breeders to feed sugar syrup, let them do so, but let them absolutely abstain from offering honey for sale. The bee journals can cry for pure food laws nd all that, but you cannot convince ie public of the purity of your honey, hen they read such stuff as Glean-ngs advises, and at the same time e you buying a ton or more of sugar; nd who can blame them? But wait ll you get some of that Carnegie Re-earch Fund placed at the disposal f some one! Won't we get some ointers then?

Waupaca, Wis., Sept. 23, 1905.

oore's Queen-Rearing Apiary.

By Fred W. Muth.

THE PHOTO I am sending, is that of Mr. J. P. Moore's apiary, at Morgan, Ky. This piary is the best arranged bee yard have ever seen. Mr. Moore is known y his friends and neighbors as "Bee immy," for the reason that he has cquired a fortune simply by raising ueens. He is a man of system, which ay easily be discerned on the picture. His nuclei are elevated two feet above he ground, one at each corner of a quare stand, in the center of which ay be seen a ten-frame colony. His records are kept by means of the slate system. On account of this elevation of his nuclei, Mr. Moore can work all day without tiring or straining his back. When I visited him early in the summer, he had some 400 nuclei and 260 odd colonies in full sway.



APIARY OF J. P. MOORE, MORGAN, KY.

In the foreground of the picture you will notice our esteemed friend W. Z. Hutchinson; to the right and rear of Mr. Hutchinson is Mr. John C. Frohliger, Secretary of the Hamilton County Bee-Keepers' Association. Directly in the rear of the latter gentleman, is Mr. Moore, but unfortunately we cannot see his face. It may be the photographer is to blame for this, but since I happened to be the photographer, I will try to say that Mr. Moore's modesty is the cause, for his multitude of friends will agree with me when I say he is extremely modest. Mr. Moore's son Hubert, may be seen to the rear of Mr. Hutchinson.

Mr. Moore says his bees actually work on the red clover. He is a Christian, and I believe him.

Cincinnati, O., Oct. 17, 1905.

PATENTS.

Excellent Advice and Suggestions to the Beginner.

By Arthur C. Miller.

MANY AN AMERICAN, perhaps it might be said the average American, is not happy unless he is inventing something. Certainly many of our American bee-keepers turn their minds and hands towards the development of new implements and new hives or the improvement of old ones. Close upon the conception of a seemingly bright idea comes the thought of patents and visions of wealth flowing therefrom. Very, very few such visions materialize, and fortunate is the individual who does not sink hard earned money in worthless patents.

In an endeavor to help would-be inventors to avoid loss and disappointment I subjoin a few facts and suggestions from a patent attorney of many years' experience. His first advice is to stick to a line with which you are familiar. Do not try to invent something for work you know little or nothing of, otherwise after spending much time and some money you may find that your idea was an old one, used and discarded long ago. Select one line, one kind of work or manufacture, make yourself thoroughly familiar with its present condition and past history, stick to that line, develop that line, and keep ahead of the art, which is to say forsee the needs and anticipate the wants.

I have in mind a man who began his business life making buckles. He devoted his whole mind to it and it was not many years before he developed machines with which he made buckles which he sold for much less than any competitor could even make them. He kept ahead of the rest of the trade. He won. He did it by intelligent application to one thing.

The value of a patent lies in the scope of the claims and the care with which these claims are expressed. In securing these things the services of a capable and experienced attorney are invaluable. The attorney who secures the most patents does not necessarily secure the best. Before paying a minimum price for something which when you get it may prove of no value, go to a good attorney and pay his price, act on his advice. Sometimes it will pay well to have a search of the patent records made for all patents in the line you are at work upon. It helps by informing you of what has already been done, by posting you in the history of the art.

A patent protects for seventeen years, it prevents any other person from making, using or selling any machine or appliance covered by the same. No person has a right to make for his own use any patented article. The only way he can get the right to use it is to purchase the right from the inventor or buy a machine from him or from authorized makers or dealers.

Providence, R. I., Oct. 18, 1905

Sixty Years Among the Bees.

By W. J. Davis, 1st.

ANOTHER HONEY season has come and gone and added its new lessons of experience.

Our season in western Pennsylvania has been a very wet one, with a large amount of thunder and lightning. The bees have not been able to crowd the queens and as a result, the hives have been crowded with brood, and as another result, many swarms have issued. I have hived 73 swarms in my home yard, quite a number of them double swarms, besides several returned to the parent hive. Some of the prime swarms were deprived of their queen and made to return. But in 9 to 11 days they would come out again with young queen, or queens, bigger than before; and hereby hangs a tale:

One morning a large swarm with laying queen issued, and was soon joined by another still larger with virgin queen. They settled together. The fertile queen being clipped was easily secured in a wire cage and said cage hung between two of the central frames and the immense swarm hived as quickly as possible. But none too soon, for two others, in the same relative condition issued and were treated in the same way. The lesson for the beginner is this: Had I hived, either mass without caging the laying queen, the bees of the said queen would have balled and killed all the virgin queens, and the sisters of the virgin queens would have killed the laying queen and there would have been confusion in the bee yard for hours, and that too with the expectation that other swarms would issue and add to the roaring of wings.

Always give such double swarms plenty of room, ventilation, and shade. Leave the fertile queen caged for four days and she can be safely liberated. One so caged was neglected for a month. On examination no brood was found in the hive. The queen was set at liberty and resumed her duties apparently uninjured by her long imprisonment.

Now, I wish to give a case for the veterans in bee-culture, which I confess is new to me: I had two stocks that lost their queens, and were not looked after as soon as they should have been owing to the press of other work, and when discovered the combs were pretty well supplied with eggs by laying workers. In fact, they were more than supplied for some of the cells I judge had eight or ten eggs in. I at once supplied them with nearly mature queen cells. The young queens hatched, and in due time became fertile. But in the meantime the eggs of the laying workers hatched, and in due time the bees capped the brood as worker brood; smooth, not the raised cells like trying to raise drones in workers cells. We all understand that no laying worker eggs can produce workers, and capping of the brood puzzled me, and excited my curiosity. But I discovered that a few days after the brood was capped it died, and some before capping.

I infer that the bees having a laying queen fed the brood as workers, which was a diet not suited to their nature. I presume it is nothing new to apiarists that bees sometimes try to rear a queen from an egg intended for a drone, and how the occupant of the royal cell would slip down in the cradle and then bees lengthen the cradle until it became a laughable object as a queen cell, and later developed a dead grub. I conclude the bees sometimes make mistakes like other mothers in how they feed the babies. This is how I did, and why: I cut out all the brood of the laying workers and cremated it, and all was well.

We have never known such a thing as foul brood in this locality, and the savants of bee literature tell us that foul brood can not emanate from dead brood. This may be true, but I would advise all beginners to allow no dead brood within reach of living bees. It frequently happens that colonies perish in late winter or early spring with more or less brood in the combs. Always cut it out and burn it.

On the 4th of June, 1905, the valley of the Brokenstraw was visited by a disastrous flood and some of my stocks were drowned and the brood perished. All such dead brood was cut out and buried deep in the ground. I suppose at that particular time it was easier to bury, than to find anything dry enough to burn, as our gas supply was shut off by a break in the line. I believe in the old adage, that "an ounce of preventive is better than a pound of cure." It is not only true of "foul brood" but of many of the ills of life.

Youngsville, Pa., Oct. 5, 1905.

WORK IN THE OUT YARD.

Taking the Last Honey.

By F. Greiner.

TO REMOVE honey from the hives at a time when no honey is coming in from the fields is sometimes anything but an agreeable task. The secret to get along easily with it lies in the prevention of robber bees obtaining the first drop of honey. How can we succeed in doing this? In the first place we must work quickly. When honey has to be removed from the hives in the outyards, we cannot always use escape-boards in the usual way, although a liberal quantity of wire-cloth, cone-shaped escape-boards will come very handy in covering up the honey after removal as will be shown.

The smoker needed when taking off honey should be a good one and of large capacity. With this the bees are quickly driven down. It may be accomplished in a quarter of a minute if the Coggshall flip-flap method is used; see illustration. The super is then jerked off. Some bees are still adhering to the honey, many of which can be shaken out by giving the super a few shakes.

Five or six supers are enough to be piled up on one stack.

Always keep every stack covered with an escape-board, as previously mentioned. However, it is not enough to cover with such an escape. Robbers have a way of holding up the escaping bees and forcing them to give up what honey they have in their honey-sacs. To prevent this sort of robbery, place a shallow box covered with wire screen over the escape-board. I use the screen-boards otherwise used to close in bees when moving during warm weather. Occasionly this screen-board is lifted up and turned over to liberate the bees which were on the honey and have accumulated over the escape in the space between the latter and the screen-board. In this manner the supers are freed from all bees in a very short time and are ready to be loaded on the wagon. If it is necessary or desirable to load up before bees have ceased flying care is exercised to keep all honey covered up, with escape-boards—that which is on the wagon as well as that to be loaded.

By following this method the bees in the yard remain quiet and peaceful. In thus removing the last honey from one of my outyards of 60 hives in September, I received only one single sting. I used no mittens (a thing I never do) but had my face protected by a light veil most of the time.

Naples, N. Y. Oct. 2. 1905.

MR. GREINER DRIVING DOWN THE BEES.

HONEY THIEVES.

And the Penalty Administered in Haiti.

By J. R. McKenzie-

MY FRIEND, E. M., tells the following story:

He had just overcome the difficulties incident to starting an apiary by an inexperienced hand, and was congratulating himself on being able at last to say, "My 25 colonies of Italians are now in good form," when he discovered one bright and early morning that some one had been into the apiary during the night and played mischief with it.

Hives were found open and frames were lying about on the ground with the combs cut out. E. M. scratched his head, thought a bit, straightened out things and reported to the police. A week after and the same thing occurred again. Another report to the police, the thieves remaining, of course, undiscovered.

E. M. now resolved to set a watch for he reasoned that if the thieves were never caught he would have to go out of the bee business. A watch was accordingly set, two men living near the apiary being selected for the task. For a whole week the watch had nothing to report, and E. M. was beginning to fear that the nightly visitors had in some way got to know of what he was up to; but one morning soon after, at 4:30, there was a hue and cry that some one was wanted by the police. The watch reported as follows:

They had remained at their post until 4 o'clock when the first streaks of daylight were seen in the East, then retired for an hour's sleep. One of the men no sooner reached his house than he heard the sharp cracking noise usually made by an excelsior cover well fastened with propolis to a 10-frame hive. He mentioned the fact to his friend and they two returned to the apiary in time to find the thieves at work. The plunderers took to their heels, but not before they had been recognized by the watch. The police was at once informed of what had happened and they proceeded to arrest the guilty parties, who were taken to the apiary followed by all the rag, tag and bob tail of the village.

It was now broad daylight, and the delicious smell of new honey was being wafted on the morning breeze from the open colony. This proved too great a temptation for the neighboring colonies and soon there was a free fight going on. The plundered colony was up in arms and determined at all costs to repel invaders. E. M. wondered why the police had brought the thieves to the apiary and suddenly a thought occurred to him. Going up to the sergeant he suggested that as the culprits had themselves uncovered the colony they should now be made to cover it again. The sergeant agreed, and the thieves were ordered at once to go and put on the cover. Now came the awful moment for the poor wretches. Most gingerly they approached the infuriated colony, and right royally were they received by the angry Italians. The bees flew at them from all sides, the men threw themselves on the ground and rolled over and over again, screaming for mercy. There were bees everywhere —bees up their pants, under their shirts, in their mouth, ears, nose and eyes. Bees to the right of them, bees to the left of them, bees, bees everywhere, stinging as only angry bees can.

To save the lives of the poor devils, E. M. suggested that they be allowed to leave the apiary while he attended to the covering of the hive himself. Scores of other people got stung also, and E. M. says that it is now his opinion that after the object lesson they have had no one will again attempt to rob his apiary.

Cape Haitien, Haiti, Sept. 5, 1905.

BEES REMOVING EGGS.

Estero, Fla., Oct. 1, 1905.

Editor Bee-Keeper:

Anent M. Hulot's opinion (referring to item in the January, last, issue of your valued periodical,) I have been handling bees but a few weeks during this, my first season at it when, after several examinations it seemed that one colony had been queenless and eggs for a period of several days. A bit of comb with eggs was placed on the bottom bar of a brood comb frame, and about three days later it was found that the eggs had been removed from it, while midway up on another comb one move and re-move nearer to the center of the brood nest were two completed queen cells—still the only indication of anything in the line of queen or eggs.

Might not experiments made under conditions similar to the above establish the facts in the matter although they had previously proven elusive to the efforts of even "long and careful watchfulness?"

W. F. McCready.

Experiments and research are commendable, for through these must come a large proportion of our apiarian knowledge. In the instance cited by our correspondent, however, evidence seems conclusive, that the completed cells did not contain any of the eggs given three days previous. Such a condition would hardly be found under six to nine days, in the event of the inserted eggs having been removed and used. Perhaps a very old queen yet remained in the hive.—Editor.

CLEANING BEESWAX—SEASON REPORT.

Upperco, Md., Oct. 6, 1905.

Dear Editor:

Please give us a few lines on cleaning beeswax in small quantities in the next issue of the American Bee-Keeper.

We had a very small honey crop in this section this summer, from June until September, they could not feed themselves. Some of my bees nearly starved. There was no pollen coming in, so some of them got very weak.

Since September 1st a little honey for winter has been coming in. I have 23 colonies this year.

D. H. Zencker.

Undoubtedly the best, and only practicable method of cleaning beeswax is through the process of remelting. Place the wax in a clean tin vessel with several inches of water, and set the whole into a kettle or other suitable receptacle containing water. Place it on the stove until the wax is thoroughly melted, then remove from the fire and skim all scum from the surface with a spoon or piece of cardboard. Keep the wax in the hot water and set aside so that all dirt may have time to settle before congelation begins. When cool and hard, remove the cake and shave all foreign matter from the bottom, and the process is complete. —Editor.

EXPLANATION OF STANDARD FOR HONEY.

United States Department of Agriculture,
Bureau of Chemistry.

On December 20, 1904, the Secretary of Agriculture, acting under authority of Congress and upon the recommendation of the Committee on Food Standards of the Association of Official Agricultural Chemists, proclaimed the following standard for honey.

Honey is the nectar and saccharine exudations of the plant, gathered, modified, and stored in the comb b the honey bee (Apis mellifica). It i laevo-rotatory, contains not mor than twenty-five (25) per cent o water, not more than twenty-fiv hundredths (0.25) per cent of ash, an not more than eight (8) per cent o sucrose.

This standard was adopted afte careful publication of an earlier suggested standard as a basis of criticism, and after careful consultatio with leading authorities in apiculture.

Since the standard was issued man letters have been received from be keepers representing many of th States of the Union, expressing desire that the standard should b changed so as to avoid the exclusio from standard honey of all honey that contain honey dew. In suppor of this plea, it is urged that the be keeper is unable to prevent the introduction of some honey dew, whethe taken directly from the plant or fro the aphis, and that small quantitie of this material are not injurious t the honey.

These requests being brought to th attention of the Committee on Foo Standards at its meeting in Chicago begining May 29 last, the Committe adopted the following minute:

The standard does not in any way exclude small quantities of honey dew from honey. We realize that bees often gather small quantities of honey dew that cannot be detected in the finished product by chemical means, and does not damage its quality. It is only when relatively large amounts are gathered that the quality of the honey is impaired, and it fails to meet the requirements of the standard. It is generally agreed that such a large amount of honey dew is injurious to the quality of the product, which can not then be properly regarded as honey.

The Voice of the Sluggard.

One fine spring day old Farmer Doyle
Said as he mopped his brow;
I don't object to honest toil,
Its time I started now
I know I ought to plow the soil,
But I hate to soil the plow.

—Saturday Evening Post.

THE

Bee-Keeping World

Staff Contributors: F. GREINER and ADRIAN GETAZ.

Contributions to this Department are solicited from all quarters of the earth.

GERMANY.

A GERMAN CONVENTION.

The great annual convention of the German and Austrian bee-keepers was held in Danzig, the Venice of the North, and was well attended. As many as 25 addresses were recorded on the program, but a portion of the speakers were absent. Dudeck, the first speaker, talked about the needs of fresh air for the bees in winter. Guenther followed with a discussion of the different bee hives and different sized frames; also about the secrets of obtaining large honey yields. (Guenther is one of the oldest and still active bee-keepers of Germany.) Rev. Sydow tried to explain "Why the bees build their cells hexagonal." The debate following showed that there were many men of different minds. Bassler, Austria, spoke next on sugar-feeding in the bee yard, which created considerable stir. The meeting passed the following resolutions:

1. We denounce all sugar-feeding when it is done for the purpose of selling the product as honey.

2. We do not recommend the taking of all the honey from our bees and substituting sugar syrup.

3. We recommend to substitute sugar for unwholesome honey such as honey dew; also the feeding of sugar to insure the necessary winter stores when such are short."

The subject of foul brood received its share of the attention next. Lichtenthaler brought out as "something new" (?) that the spreading of the disease was largely owing to the practice of exchanging combs from one hive to the other.

A desire was manifested for an effective foul brood law.

In the line of law making, Fitczeck spoke on the lack of protection that the bee and the bee business received from the general government. This was supplemented by Heydt, who urged that sugar refineries, candy shops, etc., should be compelled to keep their factories screened, thus excluding bees.

Among other topics discussed at this meeting were "Half-story or Full-story Frames in the Brood Chamber, or Both," "The Development of Bee-keeping," and the "Holding of Bee-keepers' Institutes.

In rendering wax Editor Reidenbach found that when using hard water in the process, the resulting wax cakes were partly of a spongy nature, the lime of the water combining with the wax and forming a grayish body on the underside of each cake. When using rain water no such deposit resulted and the color of the wax in general was much brighter. (The compiler of this has a similar experience with hard water and will look into the matter at an early date.)—Pfalz. Bztg.

Dennler reports, in Elz. Lothr. Bzchtr., very favorably of the Golden American bees, says, they are beauties indeed, and are as profitable as they are handsome.

Extracting combs should be cleaned up by the bees before storing away for winter is the verdict of Ludwig in Leipz. Lztg. (Just so.)

In regard to the general management of bees, L. Vogel lays down the following four theses in Deutsche Bzcht.:

1. Every colony which has not swarmed by July 1st should be compelled to discontinue brood rearing for four weeks.

2. At the beginning of July all supers should be removed so that the best honey may be stored in the brood chamber for winter stores.

3. The majority of colonies should be requeened in July.

4. For stimulating the bees, the feeding of honey is to be preferred.

The last numbers of the German bee-periodicals are full of convention reports. To the compiler of this the chief attractions of these conventions seem to be: sight seeing, social amusements, concerts, theatres, drinking, smoking and eating with comparatively little transaction of bee business mingled in.

AUSTRIA.

Jung Klaus endorses, in the Imker, the following advice given by the editor of Leipz. Bztg.: "Not to disturb the brood chamber after the end of August," but should it be necessary to do so, then to always return the combs in the same order as they were taken out.

Jung Klaus adds: All colonies should go into the winter strong in numbers, have a good queen, and their hive should be well ventilated.

Jung Klaus, the compiler of the Sammel-Korb, a department in Deutsche Imker similar to the Bee-Keeping World of the A. B. K., is inclined to poke fun at the many inventors of apiarian clap-traps, and perhaps has good reason.

FRANCE.

TOP ENTRANCES.

Fricoire Brothers report that last year they tried to put the entrances of the hives during the honey flow, between the brood nest and the supers, says L'Apiculteur. They tried only 20 colonies that way. They report that so far as the surplus was concerned, they think there was but little difference, if any, between these twenty colonies and the others. The queens did not go in the upper stories, the brood nests remained where they were. The "floors" of the hives were as clean asthose that had the entrances at the usual place. Contrary to what might have been expected, the brood nests were fuller of honey. On the other hand, the partition of the combs near the entrances were neglected. They will try again.

On the same subject a correspondent of the Rucher Belge states that with the entrance above, the ventilation is easier since the warm, vitiated air naturally raises. Such being the case, the ventilation might be too free, if the entrance was too large.

Of all the reports, I have met so far, this is the first that does not give a considerable increase of surplus as the result of having the entrance above.

AN EXPLANATION.

Before going into the papers before me, I think a little explanatory preface would not be amiss. As insisted on, time and again, lately, the conditions under which a bee-keeper operates should be fully understood before a safe opinion can be rendered in regard to his assertions. "Locality," that is, climate, time of the year, nature of the flow, kind of hives used, methods of management, etc., all have an influence, and some of the items that appear in this department look "fishy" to the American reader. Don't be in too big a hurry to condemn them. It may be merely a question of "locality."

In order to avoid too great a misunderstanding, I have often put in (for better or worse) a word or two of explanation when the difference of conditions between here and Europe seemed to me to justify it.

A few days ago it occurred to me that I have at least made one mistake. I often said that it must be remembered that the users of movable frame hives in Europe work for extracted honey exclusively or practically so. And that is true. But here in America working for extracted honey, if I mistake not, is understood invariably as giving to the bees all the empty combs they may need even if it is necessary to extract those already filled during the honey flow and return them to the bees. In Europe, it is customary to wait till late and extract all together. It is very seldom that a bee-keeper has enough combs to fully accommodate all his colonies. The result is that almost every colony receives a few combs and a number of frames sometimes filled with foundation, but more often with only starters.

So these colonies are really in a condition not very unlike ours when working for comb honey; or, more properly, for chunk honey, and this should be borne in mind.

PROGRESSIVE BOX-HIVE BEE-KEEPERS.

The American reader may not be much surprised to read that the number of box-hives or straw-hives, is, in Europe, several times greater than the number of movable frame hives, but he may be surprised to learn that a number of the very best bee-keepers and writers there prefer the box-hives, and, furthermore, get as good results from them as others do from the frame hives.

However, there are box-hives and box-hives. The right kind consists of a brood nest and a super of sufficient size. When the flow comes, the super is put on and is filled, if there is enough bees in the hive and enough nectar in the flowers. The swarming question is managed on some plan more or less similar to our "shook swarming." This being kept in mind, will often help to understand some of the statements made in this department, which otherwise might appear inconsistent.

FLAT FOOLISHNESS.

Mr. Forestier, who lives in the French-speaking part of Switzerland, made some experiments last summer to ascertain whether the bees recognize each other or rather those of the same hive by their odor. He first ascertained the effect on his own hands. He washed them thoroughly, and then rubbed them with the "juice" obtained by crushing the drones from a certain hive. Then he proceeded to open the hive, handle the frames, bees, etc. Not a sting was received, the bees even ran quietly over his hands, like they did on their own combs. But when he attempted to do the same with a different colony, the stings came fast and furious. The experiment was repeated several times with the same results except occasionally during high winds or very hot weather, when the operator received a few stings. This may be explained from the fact that a high wind would carry away the "juice's" odor and leave only the natural odor of the hands. In hot weather, the abundant perspiration evidently spoiled the program.

The next was to try on bees. The results were the same. A bee washed in greatly diluted alcohol and then daubed with "juice" from the drones of another hive is well received in the hive from which the drones were taken, from; but invariably killed or repulsed when presented to her own home. The experiment was also made with the two queens with the same result. Mr. Forestier suggests that this might furnish another "infallible" method of introducing queens.—Bulletin de la Suisse Romande.

TAKE IT WITH A GRAIN OF SALT.

Mr. H. Fontaine proposes a new way of managing bees for extracted honey. Somehow or other, he placed once in a hive some pieces of broken combs in a horizontal position. To his surprise, he found that the bees were using them as well as if they had been in their usual position. This gave him the idea of using in the surplus apartments combs made with double artificial base of wood or metal placed horizontally and having cells only on the upper side. The upper base, to which the cells would be attached, should be perforated with small holes. As fast as the bees would put the honey in the cells it would run through these holes and between the two pieces of the double base and from there in any convenient kind of receptacle. The best part of the story is that a trial made with a small piece of comb thus constructed has succeeded.—L'Apiculteur.

WHY NOT TRY THE PIGS?

Somebody has suggested that very dark, unsalable honey would be a splendid horse feed; that is, mixed with the usual grain and hay ration.

QUEEN CELLS.

An English queen breeder, Mr. H. W. Brice, is quoted as saying that when a queen is removed, two sets of queen cells are started, the first on larvae already hatched, the second two days later, or about, on larvae that were not hatched yet when the removal took place. The first batch may number from three to fifteen, the second, only two or three, perhaps only one. The queens from the second batch are the best.

PROBABLY CORRECT.

The remark has been made that sometimes the strongest colonies fail to give the amount of surplus that their size would lead to expect. Mr. Klein thinks in such cases the proper proportion between old and young bees does not exist. That they have been strong only a short time, brood rearing having only developed just before the flow. He says that a colony not well supplied with brood on May 1st is not likely to be well supplied with bees on May 20th and will scarcely be well supplied with honey on June 15th. He insists on the necessity of having the colonies strong when going into winter quarters, so a large amount of brood can be raised early enough to furnish field bees when the flows come.

WINTERING.

The editor of a German paper says that when the bees have eaten all the honey around them they can not always pass to other combs and sometimes not even move toward the other end of the combs. Therefore, the frames ought to be tall enough and of such width and number, that the honey is above the cluster. The bees can always move up; that is, the cluster, no matter how compact it is, because the heat produced rises also and they can follow with it. He also prefers the frames across the entrances so as to break the air currents.

WATCH IT NEXT YEAR.

From a Hungarian paper, the statement is quoted, that after a colony swarms, a part of the cells are destroyed while there are no queens in the hive. In that case it is always the point of the cell that is gnawed. Often when two or more cells are close together, one will be left untouched. Frequently good cells will be destroyed while insignificant ones are unmolested. The apiarist who reported this, Mr. Inkos, says he has observed this very often.

THEY INDICATE THE FLOW.

Mr. De Layens, by observations taken for two months on 39 colonies, found that the number of ventilating bees corresponds to the amount of honey gathered. The observations were taken in the early morning, that being the only time of the day when the exact number of ventilating bees can be counted. The amount of honey gathered was ascertained from a colony on scales. The highest number of ventilating bees was 70. He considers 20 as the index of a good colony. If from day to day the number of ventilating bees is plated on a chart and on the same chart, the daily increase of weight from the colony on scales, both curves will correspond. The conclusion is that the chief object of ventilation is to evaporate the nectar brought in.—L'Apiculteur.

SWITZERLAND.

MORE TOP ENTRANCES.

A correspondent tried removing the entrance above the brood nest with two colonies. One of them did not do very well at first. It was then discovered that the bottom board did not fit well. After this defect was remedied, everything went well, the colony filled 12 frames of surplus, extracted honey and one frame of American sections. (The size of the frames is not given.)

The second filled nearly three supers; that is 86 pounds, and a frame of sections. Both gave considerably more than any of the colonies having the entrance below. In that locality, 40 pounds is considered a big yield.—Bulletin de la Suisse Romande.

PROGRAM FOR THE NATIONAL CONVENTION.

Arrangements have been completed for holding the meeting in Chicago, at the Revere House, corner of Michigan and Clark streets, on the 5th, 6th and 7th of December, 1905. This hotel can accommodate at least 300 bee-keepers, and the rates are 75 cents for a room alone, or 50 cents each where two occupy the same room. Meals are extra, or they may be secured at nearby restaurants.

First Day.

EVENING SESSION.—7:30 P. M.

Wax-Rendering Methods and Their Faults. —O. L. Hershiser, Buffalo, N. Y.

Can the Tariff on Comb Honey be Tinkered With to the Advantage of the U. S. Bee-Keeper?—Hildreth and Segelken, New York.

Second Day.

MORNING SESSION.—9:30 A. M.

How Many Bees Shall a Man Keep?—E D. Townsend, Remus, Mich.

Short Cuts in Bee-Keeping.—M. A. Gill Longmont, Colo.

Producing Both Comb and Extracted Honey on the Same Colony.—Jas. A. Green, Grand Junction, Colo.

Question Box.

AFTERNOON SESSION.—2:00 P. M.

The Control of Increase.—L. Stachelhausen Converse, Texas.

Migratory Bee-Keeping.—R. F. Holterman Brantford, Canada.

Question Box.

EVENING SESSION.—7:30 P. M.

Contagious Diseases Among Bees and How to Distinguish Them.—Dr. Wm. R. Howard Ft. Worth, Texas.

Experimental Apiculture.—Dr. E. E. Philips, Washington, D. C.

Third Day.

MORNING SESSION.—9:30 A. M.

The Honey Producers League.—Can It Help Bee-Keepers?—R. L. Taylor, Lapeer. Mich.

The Business End of Bee-Keeping.—N. E France, Platteville, Wis.

Successful Experience in Making Honey Vinegar.—H. M. Arnd, Chicago, Ill.

Question Box.

AFTERNOON SESSION.—2:00 P. M.

In What Way Can Bee-Keepers Secure Their Supplies at Lower Prices?—W. H. Putnam, River Falls, Wis.

How the Producer and Dealer May Advance Their Mutual Interests.—Fred W. Muth, Cincinnati, Ohio.

Question Box.

EVENING SESION.—7:30 P. M.

What Have We to Hope for from the Non-Swarming Hive?—L. A. Aspinwall, Jackson, Mich.

Poultry Keeping for the Bee-Keeper.—E. T. Abott, St. Joseph, Mo.

W. Z. HUTCHINSON, Sec.

Quoth Lincoln:—"You can fool all of the people some of the time and some of the people all of the time, but you cannot fool all the people all the time." As true to-day as when he said it.

Things are not always what they seem. Better look beneath the surface.

You will find it first in the Bee-Keeper.

THE

American Bee-Keeper

PUBLISHED MONTHLY.

THE W. T. FALCONER MFG. CO.

Proprietors.

PUBLISHING OFFICE, - - - Fort Pierce Fla.
HOME OFFICE. - - - - - - Falconer, N. Y.

HARRY E. HILL, - - - - - - - *Editor*
ARTHUR C. MILLER, - *Associate Editor*

TERMS:

Fifty cents a year in advance; 2 copies 85 cents; 3 copies $1.20; all to be sent to one postoffice.

Postage prepaid in the United States and Canada; 10 cents extra to all countries in the postal union, and 20 cents extra to all other countries.

ADVERTISING RATES:

Fifteen cents per line, 9 words; $2.00 per inch. Five per cent discount for two insertions; seven per cent for three insertions; twenty per cent for twelve insertions.

Matters relating in any way to business should invariably be addressed to

THE AMERICAN BEE-KEEPER,
Falconer, N. Y.

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A red wrapper on your paper indicates that you owe for your subscription. Please give the mattter your early attention.

Editorial.

We have no "ax to grind," no hobbies to exploit. We are working for your good. Your success means ours also.

A correspondent in Matanzas province, Cuba, anticipates another "big year" for the Cuban honey producer next season.

Through a regretable oversight the illustrated article printed last month on pages 106-107, "Bee Experts Hunt Queens for Prizes," was not credited to the Philadelphia North American, from which journal it was taken, by courtesy of the publishers.

If you are not a subscriber to the Bee-Keeper, try it for a year. It will save you many dollars.

Do you itch—to get all the wax from the old combs? Then scratch—"claw over" the scalding hot mass in your wax press. You will get hot, scald your fingers, perhaps swear, dirty the kitchen, put your wife out of sorts, upset the whole family, and after all get only part of the wax.

Passing strange that coincident with the death of the Government's Caucasian queen a certain firm should be informed of it and discover that they possessed two from which they would sell stock. This reminds us that the present acting head of the department is a protege of said firm. Who said graft?

The Fred W. Muth Company, our Cincinnati correspondent, desires to call attention of shippers to the fact that prices quoted in our columns, are those at which it sells and not its buying prices. It is important that producers make a note of this, as a failure to do so may result in disappointment. This company, which deals very extensively in apiarian products, advises that reports from different parts of the country indicate an almost total failure of the comb honey crop, excepting points at the North. That it has been a dismal failure in Florida, the editor of The Bee-Keeper knows by experience.

With the approach of winter each season comes a flood of inquiries from our northern friends in regard to Florida. Sometimes the exhaustive lists of questions would require an additional correspondence clerk in our office to give them all careful attention. So great seems the interest at times that we have wondered if our readers in general would not appreciate having one issue of The Bee-Keeper transformed into a Florida number, and devoted almost entirely to information regarding "The Land of Flowers." If such an inclination were evinced we should gladly do so; but to answer the thousands of questions privately is a practical impossibility.

CAUCASIANS.

The last issue of Gleanings says "The American Bee-Keeper for October is inclined to regard the Caucasians 'as the most worthless race of bees that has ever been offered to the American public, and it would advise caution on the part of those who think of investing in them. Editor Hill may be right. Dr. D. E. Lyon, on the other hand, who has a colony of these bees, is very enthusiastic over them. He says he can jerk the hive open in cool weather, without smoke, and the bees will not resent it. He regards them as a valuable acquisition. The one or two colonies we have seen seem to be quite gentle; but the bees were too young at the time of my examination to form anything like an accurate opinion of their temper. However, Gleanings believes they are worth testing, and looks with much favor on the effort of the general government to obtain them from the Caucasus, and import them into the United States. One serious objection to them I see is that those we have look so much like black bees (much more than the Carniolans) that it would be almost impossible to determine by their markings whether they were pure or not, especially if raised in a vicinity where black drones were present."

The American Bee-Keeper has on several occasions expressed a belief that the Caucasians were probably the gentlest race of bees known, though the editor has demonstrated by more recent experience that at least some Punics are quite as gentle as the Caucasians with which he has had experience. It appears from the foregoing quotation that gentleness is the only virtue claimed either by Bro. Root or Dr. Lyon, and we think few apiarists would care to invest much cash in "gentleness" bereft of other merits. Those who keep bees usually do so with another object than comfort in view; and we have some slight basis for a belief that freedom from stings and innumerable queen cells are about the only product awaiting the bee-keeper who banks exclusively on the Caucasian.

The characteristic gentleness of the Caucasian has been explained by their equally characteristic lack of energy —they are too lazy to sting.

ANOTHER POSTAL CARD FROM "PAT."

Many of our readers, we know, will be pleased to have fresh tidings from the indomitable "Pat," who a few years ago went to Cuba with the evident intention of saving all the nectar secretion of the island not taken care of by his predecessors there. Occasionally Pat gets hold of a postal card and favors The Bee-Keeper with a brief account of his doings; and the last, under date of Sept. 18, bears the bad news that last season he lost about seven hundred colonies, "most part of which died from hungry and diseases," he writes. He has four hundred colonies left with which to begin the coming season. It is sincerely to be hoped that no more of his force may succumb to either "hungry" or disease.

LOOKING BACKWARD.

The Subject of Queen-rearing as it Appeared to Mr. Davis Twenty Years Ago.

In this issue of The Bee-Keeper will be found the sixth of the series of articles, "Sixty Years Among the Bees," by Mr. W. J. Davis, which brings the subject down to the "minute."

Believing that those readers who have followed Mr. Davis' letters would be interested in some of his earlier writings, we present herewith an essay written by Mr. Davis some twenty-three years ago and read before the North-Eastern Bee-Keepers' Association at Utica, N. Y., January 25, 1882. It is a masterly discourse and is characteristic of the productions of this eminently able veteran:

Mr. President and Members of the North-Eastern Bee-Keepers' Association:

I have not egotism enough to suppose that I can instruct members of so intelligent a body of apiarists of the old Empire State, in any department of our fascinating pursuit, especially the one assigned me (by your affable secretary) which lies at the foundation of successful bee culture, and any effort to do so would be but reflecting back a glimmer of the light received from that pioneer of practical and scientific bee-culture, Mr. Quinby, of your State. Your large nd prosperous association is to my ind an evidence of the enthusiasm e labored to awaken in a long neglect-l industry. His pen enriched the ages of the agricultural press in our State in ante bee-journal days, nd led many a groping novice from arkness into light. May the names f Langstroth and Quinby never be orgotten while a flower blooms and bee's wing cuts the summer air in nis fair land of ours.

In the consideration of our subject e shall go beyond the mere mechani-al part of queen-rearing, for I ad-ress a convention of bee masters, ot novices, and first consider the bject to be attained. That the ueen bee is the "mainspring" of the ive, there will probably be none to uestion, and to produce her ladyship n the way that shall develop the ighest excellence, such as vigor, eauty, longevity, gentleness, etc., hould be the aim of every bee-keeper, hether he rears queens beyond the ants of his own colonies or not.

When we look into the laws that overn the production of animal life, e find that one law obtains, from nan down through all the grades of ower animal life, viz: "The animal fter his kind."

While climate, food and surroundngs have their influence, man is still nan, whether barbarous or enlightned, and his domestic animals when red with any special peculiarity or rait in view, have developed the raits desired. While there are many lesirable traits in our present strain f Italian bees that should be fostered n breeding, I have named but four, leeming that further enumeration vould make our essay undesirably ong.

The first trait, vigor, strength, ower of endurance. As bee-keepers ve do not want all our hopes blasted y the occurrence of unusually severe vinters, which are liable to occur in ur variable climate. That one colony f bees lives and another by its side lies under precisely the same conlitions, is evidence of different powers f endurance.

I have different times exposed a number of laying queens, confined vithout workers, in cages, to a low emperature for bees singly, and watched the result. All were supplied with the same kind of food, some would become dormant in a short time while others would live several days.

I know no better term than to say the latter possessed more vigor, or power of endurance, and as the queen, so would be her worker progeny, easily chilled in summer or winter or possessing the power of resisting unfavorable surroundings.

2. Beauty. Men love the beautiful wherever seen. "Beautiful women," beautiful landscapes, beautiful homes, beautiful flowers, beautiful honey, beautiful bees. Some men may profess a contempt for the beautiful, but we don't believe their professions, and if forced to take them at their word we sorrowfully admit them to be moral monsters. But we hope there are none such in our fraternity. The flimsy assertion of some, that we sacrifice productive industry as the price of beauty in our bees is not sustained by analogy, or unprejudiced experience. To possess the highest type of stock of any kind is a source of pleasure. To have our customers say: "The queen you sent me is the handsomest one I ever saw" is certainly pleasant to say the least.

3. Longevity. It is a fact that some queens die after having laid eggs but a few weeks, while others live and prosper four or five years. All life insurance companies are particular to inquire as to the longevity of the parents of the applicant for a policy of insurance claiming to calculate the risk with much certainty. I shall assume that the same rule holds good in the breeding of bees, and that a long-lived queen will be more likely to produce long-lived queens and workers than one that lived to be only one year old. It will readily be seen that if we can add but one week to the average life of the working-force of the hive, we have added largely to the profits of the apiary. A week of added life to the worker bees would be a week of active outdoor labor. To rear bees that die off quickly (comparatively) is a profitless pursuit.

I deem it a very great mistake to suppose that the queen that can lay the greatest amount of eggs in a given time is therefore a desirable queen. If we assume that the queen bee is capable of laying 500,000 eggs during her life, shall we have them laid in two years or four? In my early experience with the Italians, I had queens that would keep 10 L frames and all the surplus capacity I could give them full of brood, the bees during the clover harvest working for dear life to feed the baby bees which in a short time were to be only useless consumers. If there be any spot on earth where the honey flow is abundant and perpetual my argument would not apply, but that place is not Western Pennslvania.

I found that such stocks, while they yielded an undesirable increase, never gave me any surplus honey or even provided themselves with sufficient winter stores, while other stocks with far less brood would give a good yield of surplus honey and well filled combs of winter stores; and subsequent years of experience have fully satisfied me that excessive breeding is not a trait to be desired in the "coming bee," but longevity is.

4. Gentleness or amiability of temper. The sting of the bee is bad enough even to professional apiarists but they are not the only ones affected by the presence of vicious bees. We claim the right to keep bees in villages, incorporated towns and cities, and if we, as bee-keepers, tolerate cross bees, they and we must grew more and more in disfavor with the people and ordinances for their removal from such places will become more frequent. In short, every consideration of wisdom, peace, and comfort dictates the suppression of the vicious type of our honey bees.

Having thus defined some of the qualities to be kept in view in rearing queens, we will next consider briefly when and how to proceed. 1st. Vigorous long-lived queens cannot be reared much outside the swarming season, and no interference of man can produce better queens than the old-fashioned way of natural swarming, providing the swarming colonies are of the type above indicated. But when the supply of queen mothers is very limited the process is quite too slow. Hence we must resort to the removal of the queen mother from one colony
to another at intervals of about t
days, or the removal of brood fro
the hive of said queen mother.
my own practice I prefer to remo
the queen, and queens produced
the removal of the queen mother
any time when a good degree
activity exists in the hive with plen
of bees, brood and eggs, and increa
ing stores. I have never been able
discover that they were in any w
inferior to those produced by natur
swarming, while those reared out
season certainly are inferior. 2d.
what age shall the queen mother b
I take it that with the queen bee,
with man and all our domestic a
mals, there is a period of greate
vigor, and there are times, wheth
perceptible or imperceptible, of gaini
or declining strength. Hence in s
lecting queen mothers, I would ali
avoid the extremes of life; I wou
not breed from a queen less than o
or more than three years old—pro
ably the best age is the summer th
the mother bee is two years ol
About ten or eleven years since
purchased an Italian queen from (
that time) a prominent breeder w
professed to have reared six gen
rations of queens in one season, a
I guess he had. Without assumi
it as a fact in beeology, I would su
mit it as an hypothesis that the co
tinued breeding of queens from you
queens will stimulate to excessi
breeding at the expense of vigo
longevity, and honey storing qualitie

As to how to produce the greate
number of queens, shall form no pa
of this essay, as bee-keeping has su
fered enough from that source.
queen breeders would kill at sig
every objectionable queen and se
less in numbers at a better price
would be quite as well for the breed
and much better for the purchase
Allow me to wish you a happy an
successful session of your associatio
and a prosperous year for the blesse
bees and their owners.

W. J. Davis,
Youngsville, Pa.

"By their acts ye shall know them.

There is more solid and valuabl matter in each issue of the Bee-Keepe than in the same space in any othe bee-paper.

ABELS FOR EXTRACTED HONEY.

We are in receipt of a sample honey abel recently put out by General Manger France, of the National Assoiation, and which is intended for use n tin cans. While the effort is commendible upon the part of Mr. France, the product of his efforts in his line are obviously a flat failure.

Mr. France has utterly failed to atch the spirit of the times, in this ine, which is soaring to the zenith of rt's enchanting realm. The modern abel is "a thing of beauty," and dislays the handiwork of the world's nost skillful artists. Their little olor schemes are perfect gems of armony, displayed in design that annot offend the most cultured eye.

Such labels attract and please--they xcite admiration and induce purchases. They are inviting; and wield an influence over the public that results in substantial gain to the manufacturer, packer or bottler whose good taste and business foresight they portray.

Mr. France's new label is identical in appearance to that seen forty years ago in almost old alley or garbage dump where the proverbial Billy Goat was wont to luxuriate upon tomato cans and other such delicacies thus decorated.

We trust that Mr. France may take a lesson from the wares of the National Biscuit Company, the Anco people, and such progressive houses. Such a line of labels would doubtless meet with popular favor, and prove a successful business enterprise for the manufacturer.

The Bee-Keepers' Review rings a bullseye when it says: "As a rule Italian bees are gentle enough for anybody. If the Caucasians possess some qualities that are really superior to those of the Italians, it will be well to consider them, but, on the score of gentleness, we need nothing better than the Italians."

Don't forget the National Convention at Chicago, December 5, 6 and 7. Neither should you forget your overcoat, mittens and an extra pair or two of "sox."

From the viewpoint of The Bee-Keeper, the most beautiful picture that has ever graced the pages of an American bee journal, is that presented as a frontispiece to the October number of The Bee-Keepers' Review. The subject is simply a lot of "quartered" sections of comb honey, as displayed by the Canadians at their great Industrial exibition at Toronto each year. The transparency of shadows and true color values are rendered to a degree of perfection seldom found outside of journals of the highest class. We congratulate The Review.

Take the time to look about your apiary and workshop and gather up all bits of comb and wax, go over all your stored combs and cut out the poor ones or poor spots, drone comb, etc. If the lower part of the comb in a frame is so old and leathery as to be unused by the bees—the lower inch or two is often thus—cut about three inches off the lower part of the comb. All the scraps thus gathered contain good wax which when refined you can sell for a good price. The work will pay well for the time it takes.

Cuba, N. Y., Sept. 29, 1905.

Editor Bee-Keeper:

Under the heading, "Bee Culture Investigations, Etc.," in the Year Book just issued by the Department of Agriculture, page 86, we find: "The frequent statements that comb honey can be artificially manufactured, have been found to be absolutely false, and the purchaser who gets his honey in the comb may rest assured that he is getting an article manipulated at least by the bees."

Permit me to ask if this can be any "thuser?"

This is, I think, a fair and true statement of the situation.

Would it not be prudent to call the attention of everyone to page 86 of the Year Book for 1904?

Fred G. Hill.

L'Apicoltore gives a receipt for honey shoe blacking. It should be good for bald-headed men—draw the flies to their shoes.

Pliny on Alfalfa.

(From Wallace's Farmer.)

Governor Hoard, of Hoard's Dairyman, has of late been brushing up his Latin and came across some instructions given by Pliny, written about the middle of the first century before Christ, which our readers, whether they grow Alfalfa or not, will find rather interesting.

"Lucerne is by nature an exotic to Greece even, it having been first introduced into that country from Media, at the time of the Persian wars with King Darius; still it deserves to be mentioned among the very first of these productions. So superior are its qualities, that a single sowing will last more than thirty years.

"It resembles, trefoil in appearance, but the stalks and leaves are articulated. The longer it grows in the stalk, the narrower is the leaf. Amphilochus devoted a whole book to this subject and the Cytisus.

"The ground in which it is sown being first cleaned and cleared of stones, is turned up in the autumn after which it is plowed and harrowed. It is then harrowed a second and third time, at intervals of five days; after which manure is laid upon it. This seed requires a soil that is dry, but full of nutriment, or else a well watered one. After the ground has been thus prepared, the seed is put in in the month of May, for if sown earlier, it is in danger from the frosts. It is necessary to sow the seeds very thick, so that all the ground may be occupied, and no room left for weeds to shoot up in the intervals; a result which may be secured by sowing twenty modii (nearly forty English gallons) to the jugerum (0.622 acres.)

"The seed must be stirred at once with a rake, to prevent the sun from scorching it, and it should be covered over with earth as speedily as possible.

"If the soil is naturally damp or weedy, the Lucerne will be overpowered, and the spot degenerate into an ordinary pasture; it is necessary, therefore, directly the crop is an inch in height, to disengage it from all weeds, by hand, in preference to the weeding hook.

"It is cut when it is just beginning to flower, and this is repeated as often as it throws, out new blossoms, which happen mostly six times in the year, and four at the very least. Care should be taken to prevent it from running to seed, as it is much more valuable as fodder, up to the third year. It should be hoed in the spring, and cleared of all other plants; and in the third year the surface should be well worked with the weeding hook. By adopting this method the weeds will be effectually destroyed, though without detriment to the Lucerne, in consequence of the depth of its roots.

"If the weeds should happen to get ahead of it, the only remedy is to turn it up repeatedly with the plow until the roots of the weeds are thoroughly destroyed.

"This fodder should never be given to cattle to satiety, otherwise it may be necessary to let blood; it is best, too, when used while green. When dry it becomes tough and ligneous, and falls away at least into thin, useless dust."

It will be noticed in the above that even our most advanced alfalfa growers at the experiment stations have not made very much improvement on the old method. Those who attempt to follow Pliny's directions will need to substitute the disk for the hoe and the mower for the weeding hook. There is after all not very much, at most, new under the sun.

Best Kind of Hive Tools.

York County Bee-keeper in Canadian Bee Journal.

Hardly a week passes without having some new-fangled idea as to "best hive tool," illustrated and described in one or more of our bee journals. This reminds me that in managing three yards I have not so far this season used any kind of tool at all excepting my fingers. To be sure, later on in the season, when my manipulation is necessary during the cool weather, something stronger may be needed, and in such cases I know of nothing better that the old-time screwdriver. A correspondent in August "American Bee-Keeper" describes a hive tool patterned after a burglar's "jimmy," and made from a piece of carriage spring, which he says is "powerful enough to tear the cover off a hive or the roof off a house, if you have leverage enough." He also adds that it works well with propolized frames. Presume he means Hoffman frames, of the kind Editor Hutchinson is railing at.

Be Careful of Quality of Winter Stores.—In view of approaching winter, and the necessity of having good winter stores in the hives, we feel, with the "American Bee-Keeper" to "caution our readers who live in cities, towns and villages against permitting their bees storing the juice of electric currents."

Apiaries and Babies.—That extensive Californian apiarist, J. F. McIntyre, in an article in June "Review," says: "It is my opinion that a man cannot run out-apiaries and be as happy as he was when one apiary, one wife and two or three babies were all he had." The "American Bee-Keeper" wonders if we are to infer from this that he adds a wife and set of babies with each apiary. While not in a position to answer the question positively, I would presume that such was not the case, as, aside from Mr. McIntyre being a former Canuck, to the best of my knowledge such combinations and privileges are only customary in the vicinity of Salt Lake City.

Foul Blood Preventives.

From The Irish Bee Journal.

In reply to our friend Spyglass (page 50) the one preventive(?) that I really object to is naphthaline. I consider that it must have as bad an effect on the constitution of the bees as it would have on us if we were continually kept in an atmosphere unnaturally impregnated with same. I do most strongly believe in natural conditions for man and all created things. Nature has provided the right conditions for us, and it is folly to think we are wiser than she. When men or other animals become diseased, it is most certainly due to some transgression of natural law, consciously or unconsciously, either by them or their ancestors. Nature before all things takes elaborate precautions to preserve and perpetuate life. Man by giving right conditions can so assist the operation of beneficial natural laws that he actually seems to improve nature. He can and does breed plants and animals practically immune to disease by selecting continually from those possessing the greatest measure of natural immunity; along these lines lies our greatest source of hope in dealing with bees. It is certain that if natural immunity had not existed in some individuals the whole human race would ere now be extinct from consumption and similar diseases, and so would the bees. I do not decry artificial preventatives. Naphthol Beta used temporarily may do good. I use Izal in medicating the food in spring and annually allow the bees to transfer themselves from the old to new combs. Bees bred in new clean combs have a better chance of health than those bred in old and dirty ones, and the expense of their annual renewal is trifling. I have escaped foul brood after four years in close proximity to infected stocks (about 100 yards distant). Naturally I put faith in my theories and in my system. I use naphthaline in very large quantities among my empty store combs, and find it keeps away moths most effectually. I get good honey crops in the worst years, when in many cases, my neighbors get very little. If all bee-keepers will be as vigilant as I am and prove to their neighbors that hard work pays, they may do a good deal to induce them to take equal pains. It is absolute folly for anyone to take up beekeeping with the idea that it is an easy way of making money. It is not easy, there are no gains without pains. Let that fact be hammered home by all bee lecturers, and we shall not have so many unsuitable persons rushing into the business to their own loss and to the general injury of the craft. Why should we be so foolish as to enlist persons indiscriminately. It is utter folly to do so. Foul brood will never cease while this class is drawn upon. They must be discouraged. There are plenty of good men besides.—Yours faithfully, W. J. Farmer, Cornwall, August 2nd.

The apicultural "chestnut" crop is increasing. Wake up brethren and say something original.

Self deceit is the most disastrous.

"Do you keep a bee?" This "chestnut" was sprung on a bee-man at a recent agricultural show and he and Bro. Putnam took it seriously, Bro. Putnam enlarging upon it at some length as evidence of the ignorance of nonbee-keepers. We thought the editor of the Rural had a "saving sense of humor" and did not have to request his contributors to label their jokes as some of our contemporaries do.

In the "B" Class.

Mary had a swarm of bees
And they to save their lives,
Must go wherever Mary went
'Cause Mary had the hives.
—Saturday Evening Post.

Brilliants.

In spite of the stare of the wise and the world's derision,
Dare follow the star-blazed road, dare follow the vision.
—Edward Markham.

Don't worry about a "slim" convention at Chicago. It will be a "packed caucus" if the "ringers" have their way.

HONEY AND BEESWAX MARKET.

Buffalo, Sept. 5.—We quote fancy white new comb honey at 14-15c; No. 2, 11-12c; No. 3, 8-10c. Old stock very dull and slow sale at low prices. Demand for new crop improving. Batterson & Co.

Kansas City, Mo., Sept. 7.—The market on white comb honey, fancy, is very strong at present, the demand exceeding the supply; 24 section cases selling at $3.00. Extracted, fancy white, selling at 6½c and Amber and other grades at 5c up. Beeswax 28c per pound. We look for the market to continue firm. C. C. Clemons & Co.

Cincinnati, Oct. 6.—We are selling Northern comb honey at from 14-16c per lb. by the case. The demand for Extracted honey is about equal to the demand, which is good. We continue to sell amber in barrels at 5 1-4-6c. White Clover, 6½-7½c. We pay 30c per lb. for beeswax delivered here.
The Fred W. Muth Company.
51 Walnut St.

Denver, Oct. 2.—We quote our market today as follows: No. 1 White Comb, per case of 24 sections, $3.00; Light Amber and No. 2, per case, $2.75; Extracted honey, 6¾-7½c; Beeswax, 24c for clean yellow.
Colorado Honey Producers' Association.
1440 Market St.

Chicago Aug. 4.—Fancy white, 14; No. white, 13@13½; fancy amber, 11@12; N 1 amber, 9@10; fancy dark, 10; No. 1 dar 9; white extracted, 6@7; amber 5@6; dar 5@5½; beeswax, 28. The new crop is ap pearing and selling in a fair way conside ing that it is midsummer.
R. A. Burnett & Co.,

Chicago, Oct. 5.—The demand for com honey is about as usual for the season year. Oeffrings from the surounding stat are fully equal to past season, but that fro Colorado and the middle western states a not. No. 1 to Fancy White comb hone sells at 13@14c, with an occasional sale 15c; off grades embracing crooked comb etc., sell at 11@12c; Amber grades difficu to place at 9@10c; Extracted White, 6@7 according to kind, body, flavor and packag Ambers, 5½@6½c; Beeswax selling upo arrival at 30c if clean; off grades about 2 per lb. less.
R. A. Burnett & Co.
199 Water St.

Boston, Oct. 5.—Owing to the war weather prevailing, the demand for hone has not come up toprevious years. Thi together with the very large quantity be ing carried over from last year, both b jobbers and retailers, tends to keep th price and demand down.
Fancy white comb, 15c; No. 1, 14c; N 2, 12c; Extracted honey, from 5½-7c.
Blake, Scott & Lee Co.

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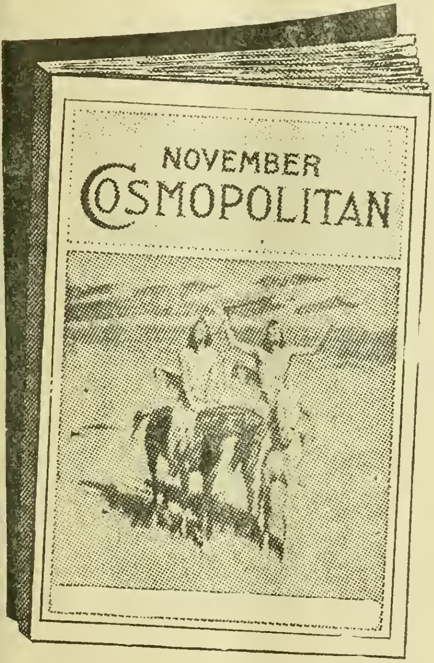

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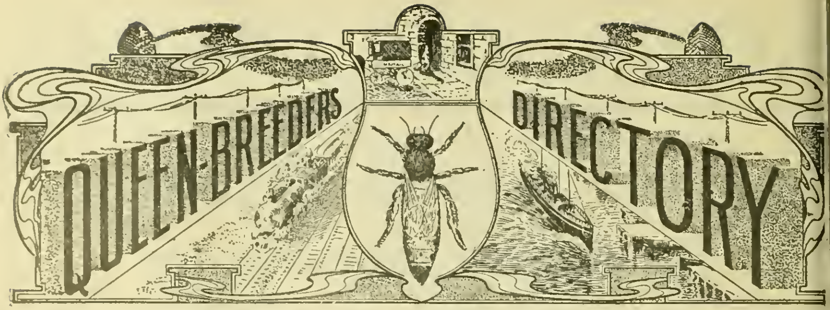

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CONTRIBUTORS—It is useless to state that Gleanings excels in this po regular department is edited by Dr. C. C. Miller, G. M. Doolittle, Prof. A. J. J. A. Green and Louis Scholl. These names speak for themselves for they are t writers of the day. Every issue contains articles from the pens of the best bee- all over the land. A list of them would be the catalog of the most successful be ers the world over. We will soon begin a series of remarkable articles by E. W ander. We are safe in saying a higher price was never paid for an article of thi as we paid for a single one of this series. Every one of them will be worth hund dollars to bee-keepers.

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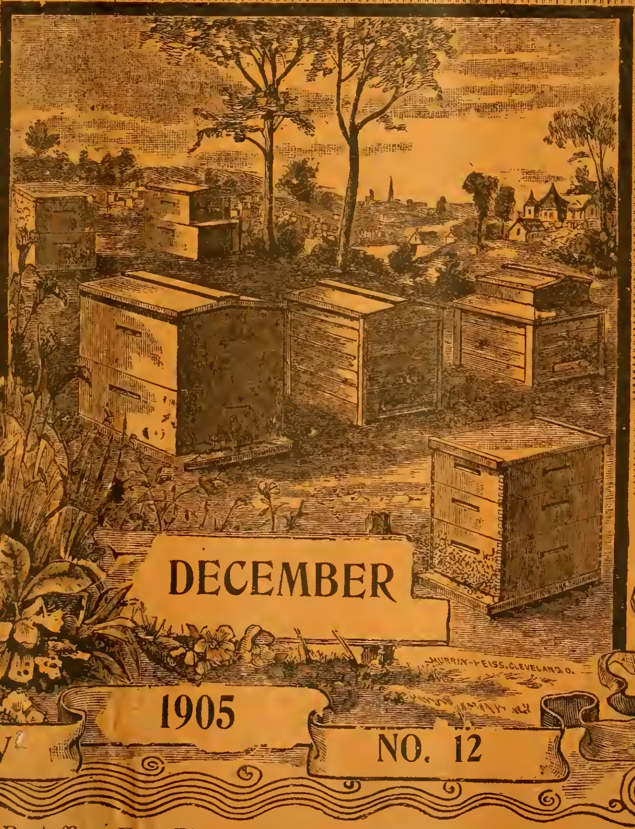
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DECEMBER

1905

VOL. XV NO. 12

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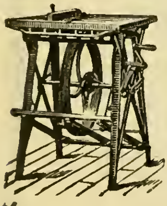

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THE AMERICAN BEE-KEEPER

Vol. XV DECEMBER, 1905. No. 12

The Passing Years.

THEY'RE passing away, these swift, sweet years
Like a leaf on the current cast;
With never a break in the rapid flow,
We watch them as one by one they go
Into the beautiful past.

As light as the beautiful thistledown,
As fond as a lover's dream.
As pure as the flush in the seashell's throat,
As sweet as the wood-bird's wooing note,
So tender and sweet they seem.

One after another we see them pass
Down the dim lighted stair;
We hear the sound of their steady tread
In the steps of centuries long since dead,
As beautiful and as fair.

There are only a few years yet to love,
Shall we waste them in idle strife?
Shall we trample under our ruthless feet
These beautiful blossoms, rare and sweet,
By the dusty ways of life?

There are only a few swift years. Oh, let
No envious taunts be heard,
Make life's fair pattern of rare design,
And fill up the measure with love's sweet wine,
But never an angry word.

—Anon.

THE "SUGAR HABIT" AGAIN.

A Criticism of Mr. Miller's Attitude in the Matter.

By Allen Latham.

MR. MILLER is right in saying (page 219) that Mr. Atwater's article bristles with indignation. The cool character of Mr. Miller's reply offers only another instance of the value of keeping one's head and temper; yet his own article, not bristling to be sure, might be accused of being studded with unfair argument.

The first paragraph of Mr. Miller's reply is a splendidly worded one and is too clear to admit of any misinterpretation, but after that Mr. Miller allows obscurity, purposely or not, to creep in. The article in Gleanings to which reference is made offers no proof whatsoever that syrup can be continuously fed to bees without entailing a loss. Feeding bees against a dearth of food, or to fill an empty brood-nest, or to put a stop to robbing, are each and all very different from feeding syrup to be stored in sections.

I have myself seen sections of sugar-syrup-honey, and have known of a bee-keeper's undertaking to produce that kind of "honey." I have seen beautifully white combs thus obtained. I have never yet seen it done with profit. By the time a man has paid for his sections, his comb foundation, his sugar, his labor, his loss in bee-vitality, his disposition of his hard-earned crop—by the time he has paid all these expenses and balanced his account, he is ready to let the bees gather honey in the way that nature furnishes. Many have tried the unhappy scheme, but they one and all drop it soon.

This is no argument for or against the feeding of sugar syrup. I only offer the preceding paragraph as evidence that the market is not likely to be troubled by sugar-syrup-honey.

But is it true that there is any reasonable danger that the honest section honey is likely to be contaminated if we feed sugar for winter stores? Possibly, but I am not convinced by anything that Mr. Miller has said. And I doubt greatly if the sale of honey is materially affected by the general knowledge that bee-keepers feed sugar for winter. I am very free to let all my neighbors and others who are interested know that I frequently feed sugar thus. I have never yet, in my twenty and odd years of bee-keeping, heard the least suspicion offered that my honey was in the least impure.

I used to keep bees in a locality where the apple-bloom was abundant and where I could usually count on a good surplus from this source every even year. It was my custom to crowd the brood-nest with syrup just as soon as the bloom started so that the honey might all go into the sections. I simply took out the combs and poured thick syrup into them. The effect was to drive the bees right into the section cases, and they usually stayed. If the flow came they filled one or two cases, but if rainy weather came there would be no honey or syrup either put into the sections. Now I cannot swear that some syrup did not get into the sections in those happy by-gone days, but I do remember that I never could get enough of that honey to meet the demand at 25c per pound. All who bought it were full of praise for its excellence. I personally used to think that there was no honey equal to it, though I have since come to like one or two others about as well. I never could detect the slightest evidence of sugar in the honey, though I never applied any chemical test.

To come back again to the matter of feeding sugar for winter. Why is this attended with no danger of such syrup afterward getting into the sections? I will try to explain, and can back up my explanation with considerable experience. When bees are fed, their combs are for the most part empty, and the feeding is with few exceptions done after brood-rearing is considerably curtailed. Where is this feed put? It is packed in close about the brood-nest, and as the bees emerge the brood-nest itself is filled.

Never, I feel safe in saying, is this feed stored far away from the center of the nest. It follows that the bees in winter consume the sugar syrup rather than the scant supply of honey which is more out of their reach. When spring comes there is but little of the syrup left, and most of this is consumed in brood-rearing. I believe, in fact, that it rarely happens that any of this syrup, if fed in the fall, ever survives the demand of spring breeding. If any does survive and is in the way of the increasing brood-nest, where is it put? It is invariably moved toward the corners of the frames, but only just beyond the nest. It suffers possibly several movings. Sometimes a very prolific queen will drive it at one move to the very corners and remote portions of the frames where it will be sealed over anew. All bee-keepers have seen honey thus moved, and all know, who know anything about it, that with a brood-nest overstocked with honey this moving will even extend into the sections under the impulse lent by the presence of a prolific young queen.

Unfortunately for Mr. Miller's side of the argument the conditions which bring about the moving of honey into the brood-nest are rarely, if ever, present after a fall when sugar syrup has been fed. Average queens will not cause any of the syrup to be moved into the sections while prolific queens will cause it all to be consumed. Who does not know that a fall of feeding is generally followed by a spring of anxiety lest the bees have too little store to last till the new honey comes?

I freely admit that to stuff the brood-nest with 40 pounds of sugar syrup might cause contaminated honey. If most bee-keepers are like me they stop with 15 pounds of syrup, simply because of the expense of such extravagant feeding.

No, we cannot be absolutely certain that our honey is pure if we allow any syrup to be fed; but can we be thus cock-sure even though we abhor the sugar barrel? As long as there are candy shops, and as long as neighbors may accidentally expose some other sweet than honey, how are we to know that our product is absolutely pure?

I should like to ask Mr. Miller what he would do if he found that his 100 colonies in late September were nearly destitute of stores? Would he buy $120 worth or more of honey and feed it at the risk of foul-brood, or would he buy $75 worth or more of pure sugar and feed it with no danger of disease? Will Mr. Miller kindly answer?

Norwich, Conn., Nov. 7, 1905.

Mr. Miller's Response.

Mr. Latham very kindly submitted the foregoing to me for a reply in the same issue. In paragraph three all the items are the same in honey production as in sugar feeding except cost of sugar and labor of feeding. The latter is more than offset by absence of "culls," and the sugar as "honey" will pay a substantial profit. Regarding loss of bee vitality, if it is remembered that bees have to sleep or rest much as do other animals, and are treated accordingly, the loss of vitality is no greater in syrup feeding than from a corresponding heavy nectar flow. In speaking of continuity of feeding, I assumed that these resting periods were understood. Evidently I was mistaken. In the paragraph on winter stores the case is well stated except that he omits the factor of the bee-keeper sometimes moving the filled combs so the stored syrup is not always located as stated, and hence the syrup is on hand at the time of the honey flow.

Regarding fruit bloom. Were you standing behind me, Mr. L., when I went through that mill? Our experiences are identical. But I would call attention to the flavor of fruit bloom honey. It is as if flavored with bitter almonds and a very little of it will hide or submerge other flavors unless they be very pronounced, hence would thoroughly hide sugar.

The moving of stores by the bees varies in a hundred ways and from as many causes. Sometimes it is from below to above, from center to sides, from one side to the other, or the reverse of all these. Sometimes the age of the queen seems to govern, sometimes the weather and sometimes the reason is too obscure even to guess at. Here is a specific case which occured this fall. An eight-frame hive was absolutely full of honey, pollen, brood and bees on Sept. 10th, and honey coming freely from golden-rod followed a week later by that from asters (a water-white honey). The super contained a dozen or fourteen boxes in which the bees were working. of which some were then taken away and eight or ten left. All contained bright golden-rod honey. October 20th, after all flowers were gone these eight or ten boxes were full of strong dark honey—seemingly buckwheat.

Mr. Latham's remark on actions of bees with different queens I think is misleading. Other factors such as temperature, size of hive, amount of pollen in combs, and a lot more, have a bearing.

Regarding the next to the last paragraph, I would only call attention to the fact that most honey is produced beyond reach of candy shops and neighbors' sweets. Honey, as a rule, is not produced in preserving time. Feeding by dishonest persons purposely for sale of the stored syrup is not what I am now fighting. It is the promiscuous and careless use of syrups which permits and generally assures their admixture with the honey, that I am combating. Such use is embraced in the practice of spring feeding, except where that is very carefully done; of feeding during lulls in the nectar flow, which is very bad; and of charging the brood-nest with syrup prior to the honey flow, which is most pernicious.

Besides that, the very appearance of evil is sufficient to condemn the practice. Persons who know us well, may take our word for the purity of our goods, but the great public will not, hence we must needs try to avoid using sugar, rearrange our methods so as to be forehanded enough to keep a reasonable supply of honey on hand for such purposes (i.e. capital with which to conduct the business) and blacklist everyone who recommends the use of syrup for aught but to prevent starvation. This may sound radical, but weigh it well before deciding.

In all our discussions let us not lose sight of the fact that so long as there is even a remote possibility of the syrup we feed getting into the honey we are to offer for sale, we cannot guarantee its purity and we are precluded from attacking those who adulterate our products after they leave our hands.

As to the last question in Mr. Latham's article: At that date I would take the honey every time. Earlier I would use the sugar (if I had not honey enough on hand) and consider it safe on the grounds stated by Mr. Latham. It is a starvation condition.

In reply to the charge of indefiniteness. That was partly unavoidable because I was not at liberty to state how I obtained my proof, and partly because much had been said before and I tried to avoid repetition. Also I have been having a lot of quiet fun poking pins into the pet theories of some of the boys by stating things I have seen and they have not. I have been able so to do by using appliances and methods of which they seem to know nothing. In due time these will be published in these columns.

Arthur C. Miller.

Providence R. I., Nov. 11, 1905.

CAUCASIANS.

They Are Regarded With Favor on Short Acquaintance.

By Swarthmore.

I HAVE HAD but part of one season's experience with Caucasian bees. My first imported queens died in transit but later secured one in good condition by sending provisioned cages to the breeder of this race in Caucasus.

From this imported mother I at once proceeded to rear drones in very large numbers; taking it away as fast as secured and placing it in queenless nuclei for development. This was quite late in the season but I succeeded in rearing several batches of fine cells. By the time I had everything in readiness for mating in a distant yard all other drones had been killed off which left me an absolutely clean field for mating up the numbers of young Caucasian queens I was holding in cages to await their turn at the mating nuclei.

Out of the several lots of queens I selected 32 and introduced them to full stocks—these young queens commenced laying at once and proved themselves most prolific. In consequence I now have 32 booming colonies of absolutely pure Caucasian bees to begin with in the spring.

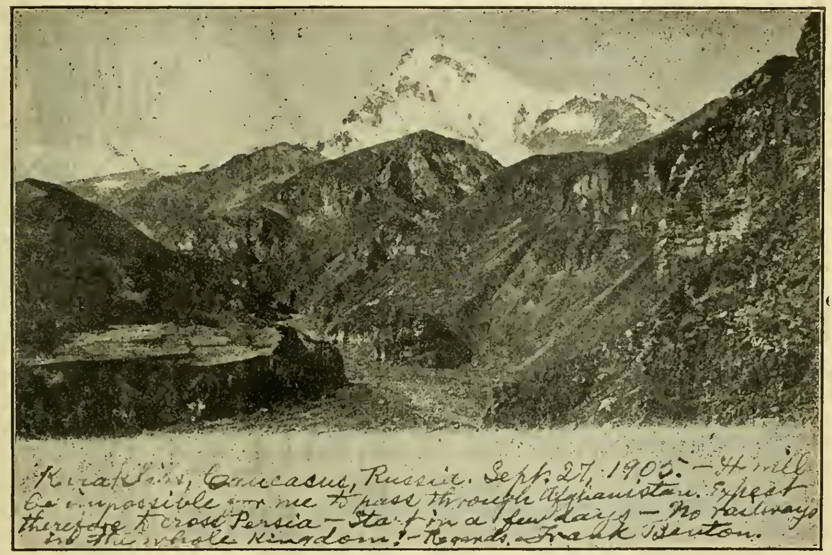
Our honey flow comes late in the season and it was with interest that I watched the nimble little Russian workers come and go. The imported stock filled its hive about equal to any in the yard. The other stock were more or less mixed therefore could not fairly estimate their work.

These bees are exceedingly gentle—so gentle that they can be actually imposed upon without resentment. Little or no smoke is required in their manipulation; the breath often only being needed to drive them back.

They are quite nervous under manipulation but do not run off the combs nor pile in knots as do the blacks. The queens are dark, often varying however, and seem a little shy. The workers are much smaller than Italian; they are striped with narrow brownish hairs and have a brownish cast somewhat like the Carniolans. The drones are as black as your shoe and have very strong wing power; their abdomen is not so blunt as the Carniolan or Italian drone.

I sent some queens away and have since received encouraging letters from one of which I will make extracts, with the kind permission of the writer.

Prof. Louis H. Scholl, Agricultural College, Texas, writes: "The queen came in fine condition and was introduced at once. It did not take long for her Majesty to take to housekeeping and she has pronounced herself a good layer. I am well pleased with her and hope she will prove a "nice young lady" next spring so that we may be enabled to rear a number of daughters from her."



Karaklis, Caucasus, Russia. Sept. 27, 1905.—It will be impossible for me to pass through Afghanistan. Expect therefore to cross Persia—Start in a few days—No railways in the whole Kingdom!—Regards, Frank Benton.

THE CAUCASUS MOUNTAINS, RUSSIA.
Facsimile of Postal Card from Prof. Benton to the Editor of The Bee-keeper.

Rev. D. E. Lyon, Matawan, N. J., is enthusiastic over his Caucasians and has a fine article in "Country Life in America."

There are several such letters as the above and I feel that we may safely set the race down as prolific as well as gentle.

All extra prolific races are apt to be swarmers but on this point I am unable to speak from actual experience with Caucasians—the Carniolans are great swarmers but they still have a long list of admirers after all. It has been said that if we run the swarming races for extracting and keep them in large hives we shall have no trouble in holding them where they belong—but this, of course must be tried out with Caucasians.

There is this point that must not be lost sight of: Being an amazingly gentle race maybe more people can be induced to enter apiculture who are now held off from so doing because of the fear of stings. I am an advocate of progress, therefore shall not hesitate to give new races of bees a fair trial even though they break me or, perhaps, set me back.

When the season opens next year I shall exchange queens with another breeder and shall at once proceed to cross out the in-breeding done this autumn. In addition to this I shall make an effort to import a few more mothers.

Swarthmore, Pa., Oct. 12, 1905.

EXTRACTING BEESWAX.

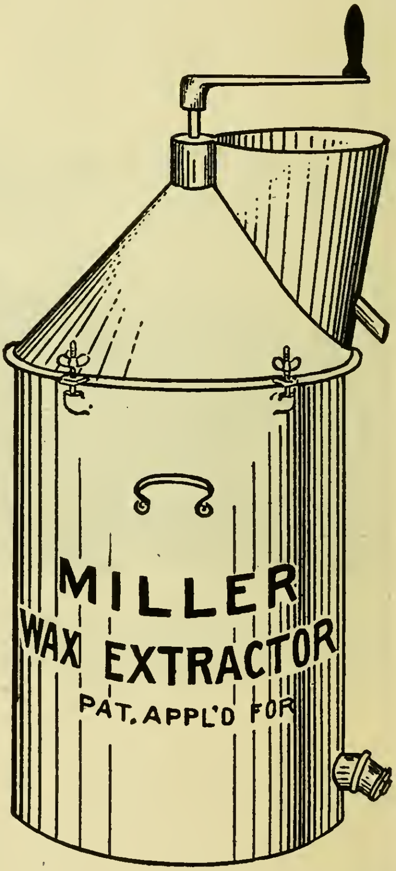
A New and Thorough System Devised.

By A. C. Miller.

BEESWAX, not old Old Beeswax, the butt of the village jokes, but the real article is my theme, the jokes will be on the jokers who have been loudly urging the production of wax, but ignoring the pains and pleasures of the producer and the cost of production.

Wax produced from cappings and sold at 26 cents to 28 cents per pound less freight charges may be profitable in a measure, but producing it from old combs by the common methods of melting and skimming, or by pressure, spells loss in big letters. Let us see how this occurs. First we get a roaring fire in the kitchen stove, get a wax press in running order and charged with a mile or so of cheese cloth. Next we begin to load it with comb. Oh, dear, there goes a piece on the stove and burns, and complaints are heard as to the smell. At last it is loaded and pressure applied. Thunder! the water is out. Saw it just in time. Now we're off again. Phew! but it is hot over this stove. Crash, slam, bang—! Oh, dear, I believe I have broken my arm. No, I guess its all right, I didn't think that box was so weak. Well here goes again. Now let's open up and claw over the slumgum. Great Scott, how the stuff scalds. After three or four hours of such troubles we find we have five to ten pounds of wax, which after remelting and running into cakes will be worth from $1.50 to $3.

Incidentally we have filled the house with the steamy odor of dirty old combs, have bedaubed the stove and kitchen with wax and dirt, scalded our fingers, used up a lot of fuel and upset the whole family. Does it pay? When one realizes that despite all this fuss, labor and discomfort only about half of the contained wax is recovered, a feeling of disgust is apt to find such secure lodgment that thereafter wax production will be neglected altogether.



All of this is unnecessary, for the

production of beeswax may be made both easy and profitable if right methods and implements are used. If we can produce more wax from the same quantity of raw material, with the same labor and in the same time, we make a gain, or if we produce no more than before but with less expenditure of time and labor we gain. If, however, we can double the present production and halve the time and labor, we make a gain which expressed in figures is equal to getting 75 cents to $1.00 a pound for the present wax output of our apiary. These results are accomplished by the use of a wax extractor recently put upon the market by the Falconer Mfg. Co. The device works on principles different from those embodied in any other machine heretofore employed. In presses and similar contrivances the comb mass is compressed, and hence holds a large amount of wax despite the pressure. In mere submergence or submergence with agitation only a small portion of the wax is released, but with submergence and simultaneous disintegration, agitation and pressure, all of the wax will be separated from the waste and secured.

The new device accomplishes all this. It consists of two cans, one within the other. The outer can, shown in the cut, has a conical cover with an outlet pipe for the wax, a faucet for the withdrawal of water and an inlet for water. Through the top of the conical cover passes the shaft which moves the inner mechanism. The inner can has a perforated bottom and top, the latter being removable. Within this can and attached to it are parts of the grinding apparatus and attached to the shaft which passes through the middle of the can are corresponding parts.

The method of operation is simple in the extreme. After removing both covers hot water is poured in until the can is one-half to two-thirds full. Then comb is put in until the mass is up to the top of the can, then the covers are replaced, hot water added through the funnel on the cover, and as soon as the fluids reach the apex of the cone the wax begins to flow out. The crank is then turned for a few minutes, more water is added and more wax escapes. Where the water appliances are convenient a small but steady steam of hot water may be allowed to flow in and the wax will flow as steadily out. When all of the wax has escaped, the faucet is opened, some of the water drawn off, covers removed, the inner can (which contains all the refuse) is taken out, emptied and returned to its place, and the process repeated. It will be observed that it is thus necessary to use but a little fresh water with each change. Furthermore it is not necessary to have the extractor on a stove. When it is used in the open air or in a cool or unheated room it is advantageous to have the extractor protected with a jacket or wrapping of cloth or paper to conserve the heat.

The operation is rapid, there is no heavy lifting, no working over a hot stove, no clawing over of scalding slumgum, no danger of fire from spilt wax, no boiling out of water and consequent melting out of the can and no straining at a press. The slop and dirt in the kitchen is dispensed with, much to the gratification of the good wife and to the ensuing peace and comfort of the home.

The invention of this wax extractor marks a new era in wax production, and its extended use should greatly increase the wax output of the country.

Providence, R. I., Nov. 6, 1905.

Status of Bee-keeping in Massachusetts.

By Burton N. Gates.

HONEY CONSUMED in Massachusetts is one-fourth state product. The rest comes as follows, from: California, 145 tons; Vermont, 15 tons; the balance of the 200-ton import is from other states. This would allow, with a population of 2,805,000, fourteen-hundredths of a pound or less than two teaspoonfuls of honey per person, as a year's ration. Nevertheless, Blake, Scott & Lee Co., of Boston, states under date of October 5, 1905, "That a very large quantity of honey is being carried over from last year," and the "demand is down." What a thirst for honey. But it remains: we have to import

In Massachusetts, bee-keeping is profitable; it is evident from the returns of a questioner sent, this past week, to the members of the Worcester County Bee-keepers' Association, by their secretary, Mr. Charles R. Russell. We have not heard from all; but such returns as are in show thrift, progressiveness, good increase, and good crops.

Our purpose in sending out this blank was to gather data that we might form an estimation of the honey crop; the number of bees kept by our several members; the amount of increase; the general interest in bee-keeping; and last but in no measure least, the evidence if any, of bee disease. From the reports, there is much satisfaction. It may well be said, however, that there are no extensive apiaries in this region, as there are in the west, and consequently we have no astonishing yields. There are, on the other hand, a considerable number who keep two to a dozen or fifteen hives. With these, they are able to supply their own tables and some few of their townsmen. We never hear a complaint from the bee-keeper, that he has more honey than he can get rid of.

The yields, as shown by our reports, range per apiary, from 75 to about 500 pounds. One gentleman reports two hundred pounds extracted from a single colony, and an average of 45 pounds per swarm of comb honey. The president of our society, Mr. F. H. Drake, of E. Brookfield, has taken from 11 colonies, five of which were 1905 swarms, 340 pounds. Similarly, another reports 300 pounds from 10 colonies in which case there was no increase. One bee-keeper, who lives in the central part of Worcester, reports 320 pounds of honey. Another 384 pounds, from 7 colonies, or an average of 55 pounds per colony. Such are our yields. But just what is the average per colony, is not, for several reasons, so easily stated. In the first place, our bee-keepers have sold and bought swarms; have lost them; and the most important factor of all, some have neglected them, thus bringing down the average. The census for 1900 shows an average of 13.0 and 14.0 pounds of honey per colony in Massachusetts and Vermont respectively, against only 28.0 pounds in California. These comparisons would seem encouraging. But they are all low, chiefly because of faulty reports or none at all or because of inefficient management. Notwithstanding the inaccuracies and incompleteness of our returns, we find by our data the average yield to be 35 pounds per colony, which figure is probably nearer right than the census report.

Bee diseases are not doing any noticeable damage in the state; but three mention their presence. That some disease is here, is certain, because the writer has found evidence of it in several parts of Worcester and the surrounding towns. What disease it is—"black," "pickled," or "foul-brood" —we are not positive, no fatal cases, however, have been known; but its course and progress must be watched. Massachusetts bee-keepers—strive to do better next year. Try to produce the two hundred tons which are yearly imported to the state. Our natural resources will yield that and an even greater amount. Try to induce your community to eat on the average more than two teaspoonfuls of honey, this year; it would be far more healthy than ten times that amount of cane sugar. Learn to do things by modern methods; increase our yields thereby, from one-fourth to at least three-fourths of the total consumption. We had better export than import honey.

Worcester, Mass., Nov. 12, 1905.

WAX ADULTERATION.

The Honey Producers' League.

By J. E. Johnson.

IT SEEMS somewhat strange that my saying merely that I thought comb foundation contained paraffine, but admitted that I might be wrong, should draw forth a two column editorial criticism from this paper, in which the editor attacked, not only my present, but my past, writings, branding them as weak and not only so but the editor of Gleanings takes the matter up in an editorial (see Gleanings page 1067) and compliments the editor of the American Bee-Keeper flatteringly for saying that it was all in my mind. Permit me to say that I have met many bee-keepers at both the St. Louis and Chicago conventions that are of the same mind.

Gleanings says that they denied the statement made by Prof. Wiley in June issue, and so they did, nearly three months after the statement was made by Prof. Wiley.

The editor of the American Bee-Keeper infers that I believe every thing that is said by professors. Far from it. I disagree with the views of Prof. Wiley on many points, but it still remains a fact that consumers of honey do recognize Prof. Wiley as the highest authority in the United States, and it is immaterial what bee-keepers think. When the Prof. gave out this statement in the Rural New Yorker, to be copied in other papers, it becomes damaging to the producers of honey because the readers of those papers are consumers of honey and they believe Wiley's statement, and if comb foundation is adulterated, then comb honey is not all the product of the bee.

It was plainly the duty of the manufacturers of comb foundation to demand that Prof. Wiley make a retraction of his accusation or that he prove his words true, and make his corrections in the same paper. The manufacturers are in close enough touch with each other to all lower or raise the price of their goods simultaneously. Surely they should unite in the effort to protect their good name. A mere denial in their own paper that is only read by bee-keepers is a very half-hearted way to undo this wrong. I read the Rural New Yorker and I know that its editor is heartily in favor of the rural people and would not intentionally wrong them, and he would be ready to co-operate with them to have that statement corrected if it is entirely false.

We see a great deal of praise given to the agricultural department at Washington in some bee journals and I am surely thankful if they do give us any real aid, but first I think it should be their duty to undo the great wrongs that have been done to bee-keepers by statements given out by one so high in authority in that department.

I believe if the manufacturers will think soberly as they ought to think, they will agree with me that they have not done their duty in this matter either to us or to themselves. Their attention has been called to this several times, but it seems that I was the only one who put it strong enough to call forth much comment, and I am perfectly satisfied to stand considerable abuse if only it will result in stopping these continual damagain statements coming from the so-called high authorities. I have only the kindest feelings toward the manufacturers, but as we have patronized them for many years to their success, and aided in building them up by our patronage from very small institutions to large ones, surely they should feel grateful enough to remove the stain that Prof. Wiley put upon their goods by saying to the public that they use paraffine in the manufacture of foundation.

Statements coming from high authority carry weight, even though they be unreliable. Three years ago many bee-keepers received comb foundation that was very white and hard; probably because it had been carried over one or two years, and as we hear very little of late of bleached wax, many were suspicious of this as the appearance was against it, and the bees did not accept it so readily. It would be well for the makers of foundation to explain this more thoroughly.

By referring back to Gleanings for August, 1877, page 201, I find A. J. Roberts quotes foundation at 55 cents per pound in 5 pound lots, with white wax 25 cents per pound extra, but says "We consider the yellow in every respect preferable." Also on page 203, Gleanings August, 1877 R. S. Joiner says: "Bees chaw yellow foundation more than the white, but A. I. R. disagrees, and says he can see no possible need of using white wax at all; and that white wax is purchased of wax bleachers. I think it would be to the interest of the manufacturers if they explain more fully about wax becoming bleached.

On page 196 of American Bee-Keeper, 1905 "The Honey Producers' League" is attacked in very bitter terms by one who has not the courage of his convictions, but uses the non de plume of a "N. B. K. A. member." While I believe in kicking when the occasion demands it, I think we should not kick when there is nothing in sight to kick at.

The organizers of the Honey Producers' League are deserving of great praise from every bee-keeper. When men will put in from $10. to $600. of their own money to help a cause in which they are only indirectly interested, surely they should have some credit, and if they are not able to do much good, surely they will do no harm. If they don't succeed, it will be because of the opposition of such as "A member." I would recommend that "A member" become also a member of the League, which has already done more than any bee-keeper's organization has ever done in the way of popularizing honey. It is due to the League that a bulletin has been published that contradicts Wiley's statement that comb honey is manufactured, and also that 1905 year book contains a contradiction. The Honey Producers' Association organized at St. Louis, was practically a stock company, and only the big guns are able to have any stock in it. It was talked at that convention that the manager should draw a big salary. The Honey Producers' League is for all, and each pays according to his capital invested in bees or bee supplies, which is very fair and the officers draw no salary. Surely the officers who not only gave their money freely, and are also giving their time, are entitled to praise and thanks from all bee-keepers. We ought to encourage them, and show that we appreciate their efforts. I am a member of both the League and the N. B. K. A. and expect to continue so.

Williamsfield, Ill., Nov. 14, 1905.

"Laziness is like molasses, sweet and sticky."—Josh Billings.

"It is human to err, but devilish to brag on it."—Josh Billings.

WHERE SHOULD THE SECTIONS BE?

By Dudley B. Truman.

DURING THE last few years, our friend Hutchinson has done his best to get the Hoffman frame relegated to the scrap-heap. For my part, I would willingly see the modern comb-honey super follow it; for the comb-honey super is an abomination that is contrary to the very principles of bee-physiology.

If we watch bees to see how they make comb, we shall at once observe that they work from sides to sides; they do not start a brood-nest in one part of the hive, then begin to store honey in another remote part of the hive, and then come back to the part where they started. No, they work systematically. Each new comb is formed next to a pre-existing comb. This comb is then filled with brood or honey; and then another comb is started; and so on.

With a weak colony, bee-keepers adapt themselves to this principle, and place each new brood--frame by the side of a pre-existing one. But the moment the colony becomes strong all this is altered. Instead of following up the method that has up to now proved so successful, the bee-keeper suddenly changes his tactics and places his sections, not at the side, but on top of the brood-chamber.

This is all wrong, for the habit of the bees does not change. Why should it? The bees merely go on working in the place where they have started. From this point of view there is no earthly reason why they shouldn't.

In the course of time, the work becomes so brisk that there is no further space left for them to go on working in the old way. "Then," you will say, "they must go up in the super and start a nest there." But why should they? If they must leave the old nest why should they start the new nest in a super rather than in a brand new hive? That they may by the skill of the bee-keeper be coaxed into doing so, I admit; but it is not natural. You might just as well expect bees in the trunk of a tree to suddenly start building comb in its branches.

Let us make a little study of anatomy: A queen bee has long legs and short wings; a worker has short legs and long wings. There is a reason for this. The queen has a lot of walking to do. Day after day, and all day long, she has to travel from comb to comb. Her strength need not be in her wings, therefore, but in her legs.

On the other hand, and this is the point I wish to bring out, the worker uses most of her energy in flight. Hence, the wings must be developed at the expense of the legs. It follows that if we wish to save bees labor and so increase their capacity for getting honey, we must aim at decreasing their need of walking.

Now let us turn to the modern hive, and see how it carries out this principle. Let us supose an exhausted bee has just dropped upon the alighting board with a load of honey or pollen.

First it has to run along the bottom board, then toil painfully up between two narrow combs. Then it must squeeze its way between the top bars. Next it must turn a corner round the carrier, and squeeze between the carrier and the top bar, then turn another corner, crawl up the side of the section, skirt along the top and finally descend along the foundation or comb until it reaches the cell in which it is your intention it should deposit its load.

Further, at the risk of wearying you, (for the mere statement of all this labor will be wearisome to read), let me add that all this work has to be done amid a crowd of jostling bees, through top bars and combs that are very likely narrowed by deposition of wax.

I do not know whether this seems fanciful to you, but try to imagine what it would be to you if you had to carry a sack of flour, going upon all fours through secret ways into the top turret of an ancient castle, and that you had to do this not once but two or three hundred times a day. Then you will understand.

Thus far, I have dwelt merely upon the principle of the thing. I have said nothing of the practical side of the matter—of the inconvenience of lifting heavy supers whenever you wish to examine the brood-nest; of the heat of the super, and of the hundred and one other awkwardnesses that are known to you all. These things I leave to your own good sense. All I wish to point out is, that in theory and practice the modern super is wrong.

In theory, the sections are put where bees have no intention of building; and in practice, where they do their level best to avoid storing honey.

Breezy Hill, Nassau, N. P. Bahamas.

QUESTIONS FOR DR. BLANTON.

Sabana la Mar, Republica Dominicana.

Oct. 26, 1905.

Editor American Bee-Keeper:

I have just received the custom house statistics for April, May and June. The exportation from this country is; honey, 6,940 gallons; wax, 79,916 lbs.

If convenient could you tell me what is the style and size of Dr. Blanton's hives? Do the frames hang square to the entrance or lengthwise? What is the size of the entrance? Any special feature for ventilation? This would interest me greatly as I have to make at present, my own hives and what I so far have don't satisfy me—the bees are hanging out so much on the front of the hive. Whether it is the smallness of the entrance—only from five-sixteenths to three-eighths—or some other cause, I do not know. My frames are 9x14, 13 frames to a box, spaced twelve-sixteenth inches. The next frames I will make 9x19, and the same box will take 10 frames. Another question: what's the bee-space between bottom board and frames? Yours truly,

Joseph Braun.

We believe Dr. Blanton's hive is of the style known as the "Long Ideal," in which the frames are of the Adair or American type and hang crosswise. As to exact size and ventilating devices we cannot say, but perhaps Dr. Blanton himself will be so kind as to enlighten the inquiring correspondent. The hanging of the bees on the outside is doubtless a result of insufficient ventilation, and any plan that will set into circulation a current of air through the brood-chamber will have a beneficial effect. The matter of exact spacing is not important under the frames—a half-inch will be all right. It is important, however, that sufficient space be given to allow for any shrinkage of hive-sides and sagging of bottom-bars, so that bees may not be crushed under the frames during manipulation, and in order that they may always swing clear of the bottom.—Editor.

NATIONAL CONVENTION POSTPONED.

Flint, Michigan, Nov. 7, 1905.

Another slight postponement of the National Convention seems to be unavoidable. The Fat Stock Show upon which we have depended for reduced rates upon the railroads, has been postponed two weeks. The reason given is "the inability of the builders of the amphitheater to secure structural steel for the same," and they don't wish to hold the show out of doors, hence the delay. Of course, there will be no excursion rates during the first week in December, and, as it would be suicidal to attempt to hold a convention without excursion rates, the Executive Committee has decided to postpone the convention two weeks in order to take advantage of the Fat Stock Show rates. The dates for the Convention will now be December 19th, 20th and 21st.

The place of meeting has also been changed to the Bush Temple of Music, corner of Clark St. and Chicago Ave. This was done because it was feared that the accommodations at the Revere House might prove too limited. The Chicago bee-keepers, with their customary enterprise and liberality, will pay for the use of the hall. It is only five minutes' walk north from the Revere House, which will be headquarters for the members. This new place of meeting is in a new building where everything is modern. There are adjoining committee rooms, toilet rooms, good drinking water, and elevator service both day and night.

W. Z. Hutchinson,
Secretary.

THE
Bee-Keeping World

Staff Contributors: F. GREINER and ADRIAN GETAZ.

Contributions to this Department are solicited from all quarters of the earth.

GERMANY.

The German bee-keepers have the same problems before them to solve that we Americans have. They are laboring hard for a law to protect their product, "honey." They define it thus, "Genuine honeys are the sweet exudations and secretions of plants, gathered by the bees and converted by them into honey within the hive."

Foul brood is the other problem. A law for the controlling of the disease is needed and very much desired by the bee-keepers. The matter is being agitated by the different organizations.

The question whether to use deep frames or two stories of shallow frames for the brood chamber is looming up from time to time in the apicultural press. The deep frame for wintering is considered the best.

ITALY.

A lady bee-keeper tells in Corr. Apistica that she keeps down the grass around her house apiary by covering the ground with old phosphate sacks. Ants she drives away or destroys them by throwing a small quantity of salt over the ant-hill, then covering with sacking. In some sections of Italy the honey crop is large—very large; in other parts there has been a failure. The well-known Rauschenfels says he has not an ounce.

Dr. Raimondo has of late invented a beeswax extractor, the construction of same, however, is not given in Leipz Bztg from which the above is taken.

BELGIUM.

Voices are heard in Belgium in defence of their native honey-bee. It is thought by some that it would pay to improve their bees by selection, etc., rather than by importation of new races.

AMERICA.

In a letter sent out by the Apicultural Department it is said that the common black bees and certain strains of Italian bees have deteriorated.

Souvenir postal cards received by us from time to time from Professor F. Benton indicate the course of his travels.

The German apicultural press is commenting on the gigantic undertaking of the Department at Washington, sending out a man to obtain new races of bees, and have him travel over the different continents for this purpose.

FRANCE.

TESTING WAX.

It is sometimes difficult to ascertain whether wax bought is pure or not, especially when the adulterant is only in small quantity. L'Abbe Butet tests for the presence of ceresin by putting a little of the suspected wax, previously melted, in a boiling solution of soda. The wax will form a beautiful white soap with the soda, while the ceresin will remain intact.

Mr. Hommell suggests that a test with benzine might often be useful. The wax will dissolve entirely in the benzine and the dissolution will be perfectly clear, while a large number of the possible adulterants will either not dissolve or give a clouded solution.—L'Apiculteur.

TESTING FOR GLUCOSE.

A correspondent in speaking of the difficulty of detecting the presence of glucose in honey suggests that it might be easier to detect the impurities that always accompany the glucose than the glucose itself. As a matter of fact, pure glucose or the syrups made with it would be, and some of those found on the market actually are, nearly as good and as wholesome as pure honey. But the price of such is necessarily at least as high or higher than the extracted honey with which they would come into competition. The glucose used for adulteration is necessarily of some cheap, and more or less impure quality, and the impurities ought to be easy to detect, being mostly lime, gypsum or sulphuric acid or the impurities contained in the lime and sulphuric acid used. This last very often contains some arsenic.

Mr. Alex. Astor left, by mistake, a comb containing eggs in his workshop. During the night the temperature went down to about fifty degrees. Next day the comb was given to a colony and the eggs hatched out as well as any other.—La Revue.

Out of seventy-five bees which had laid on the snow twenty hours only a dozen failed to revive when warmed up.—La Revue.

At a bee-keepers' convention, Mr. G. Lichtenthaeler stated that he was no longer afraid of foul brood. To cure, he simply cuts out and destroys all the brood.

HIGH PRESSURE STIMULATION.

It is stated in the Revue Internationale that Langstroth during his life had once proposed to feed the bees in the spring with a preparation of milk, malt and honey in order to furnish a food ready for the larvae and thus increase brood rearing, especially when and where there is not enough pollen either in the hives or in the field.

Gerstung came in some time ago with another formula for the same purpose consisting of five parts of honey, one part of condensed milk, one of Mellin's baby food and a pinch of Dr. Lahmann's fertilizing salts for plants.

Next!

STRENGTH OF COLONIES AND QUEENS' CAPACITY.

Ph. Baldensspergeṛ thinks that but few queens ever lay three thousand eggs a day, and then only occasionally. The average daily number laid during the whole year was eight hundred and seventy-six. The average during the best laying season, one thousand seven hundred and sixty daily. As at the beginning and end of the season the colony contained ten thousand bees; three hundred thousand bees must have died during the year, and of course as many were born. That colony yielded one hundred and seventy-eight pounds of extracted honey from April 10th to August 8th. He thinks that in a larger hive the results both in egg-laying and surplus honey would have been better. This was in Palestine.

A colony observed at Nice gave during the heavy egg-laying term one thousand seven hundred and ninety eggs, but the surplus was less than half that of the Palestine colony.

Commenting on the above, the editor says that he has often had reports of greater egg-laying than that, and thinks that the mortality in bees is greater in warm countries than farther north, and for that reason the egg-laying or rather, brood-rearing, cannot reach as great a development. He says that in Switzerland colonies can be found having a population of seventy thousand to eighty thousand bees and even more. A queenless swarm belonging to him hived the 24th of July had eight thousand bees on the 22d of November. In his locality (the editor's) the main crop lasts from two to four weeks, more or less interrupted by rains, yet one hundred pounds of surplus are frequently obtained. With a honey season as long as that of Palestine, one hundred and seventy-eight pounds does not seem to be so very big after all.—La Revue Internationale.

IDENTIFYING HONEY.

Dr. Pfister claims that by observing under the microscope the grains of pollen found in the honey, it is possible to determine from what source it comes. The dandelion pollen was the most often found. Honeys from tropical countries show different pollens from those of Europe. Those from Chili and North America can scarcely be distinguished from those of Europe. That of Australia shows the pollen of the eucalyptus.

OLD BEES FOR NURSES.

One of the experimental stations of Switzerland made several swarms with only old bees. It was found in every case that a portion of them did the work usually allotted to the young bees, acted like young bees and even assumed in some respects the appearance of young bees, with well-filled abdomen and a propensity of falling from the combs.

BRUSHED SWARMS.

One of Gravenhorst's methods of forming brushed swarms is to brush all the bees from a colony and put them on a new stand leaving the combs on the old stand. That is precisely the reverse of the usual process. Most of the bees will remain if the operation has been done early in the day, before the bees take their play-spell, and if given a chance of filing with honey before being shaken.

If a very strong colony is desired, two or three swarms thus made can be united or brood from other hives can be added.

STARTERS FOR SWARMS.

When hiving a swarm, Gravenhorst gives only a few frames and these with starters only, about what the swarm will build of worker comb. After these are nearly full, and when drone comb would likely be commenced, he completes the brood nest with foundation.

CAUCASIANS.

Adulterated Foundation, Etc.

By E. F. Atwater.

FRIEND HILL:—Several items in the October American Bee-Keeper have aroused my interest. I have a Caucasian, and also a Caucasian Carniolan colony from the government stock, and I am going to ask you to, tell you readers, in detail. your experience in regard to the Caucasian bees, and the experience of others, with which you are familiar. It might save some of us an unprofitable experience. Are you aware that Mr. Herman Ranchfuss, of Colorado, after several years' trial, considers them the best bees, all things considered? He says they equal Italians for honey, gentler than any other race, use propolis freely, make white capped comb-honey, and build many queen cells.

With faith in my heart I planted the "Agricultural Department's" seeds of honey plants. I had better fed them to the chickens.

About adulterated foundation—I had 100 lbs. at one time, and 10 lbs. at another, from a western manufacturer, that was probably adulterated. I sent a sample to an Eastern firm to be tested. They wrote that it seemed to have been made from cheap West Indian wax, too soft to make good foundation; that their wax-testing apparatus was out of order, but that they would repair it, and then test the wax, and report. They have never done so. You could not put enough wires in a frame but this worthless foundation would sag and tear off. I know from friends whose experience was the same as mine, that the foundation which I received was not an exceptionally poor lot. I will send the name of this firm to anyone who will write me enclosing a two cent stamp, that others may avoid my experience.

Boise, Idaho. Oct. 17, 1905.

THE
American Bee-Keeper

PUBLISHED MONTHLY.
THE W. T. FALCONER MFG. CO.
Proprietors.

PUBLISHING OFFICE, - - - **Fort Pierce Fla.**
HOME OFFICE. - - - - - - **Falconer, N. Y.**

HARRY E. HILL, - - - - - - - *Editor*
ARTHUR C. MILLER, - *Associate Editor*

TERMS:

Fifty cents a year in advance; 2 copies 85 cents; 3 copies $1.20; all to be sent to one postoffice.

Postage prepaid in the United States and Canada; 10 cents extra to all countries in the postal union, and 20 cents extra to all other countries.

ADVERTISING RATES:

Fifteen cents per line, 9 words; $2.00 per inch. Five per cent discount for two insertions; seven per cent for three insertions; twenty per cent for twelve insertions.

Matters relating in any way to business should invariably be addressed to

THE AMERICAN BEE-KEEPER,
Falconer, N. Y.

Articles for publication or letters exclusively for the editorial department may be addressed to
H. E. HILL,
Fort Pierce, Fla.

Subscribers receiving their paper in blue wrapper will know that their subscription expires with this number. We hope that you will not delay in favoring us with a renewal.

A red wrapper on your paper indicates that you owe for your subscription. Please give the mattter your early attention.

Editorial.

He who will flatter another will rob him when he gets a good chance.

A groove rapidly develops into a rut. Get up on the edges now and then and broaden your way.

It isn't always the man at the head that is doing the mischief. Some of the biggest scoundrels are the fellows in the background.

Editor Abbott nominates officers for the National Association, and says: "Let us have a new deal all around." Yes, a new deal is very nice—when the pack is not stacked. Has Bro. Abbott kissed and made up with the bunch since he was general manager?

England is using motor cars for power in agricultural work. It will be for extracting honey next. Who said Old England was slow?

You cannot tell how far a toad can jump by his looks. No more can you tell how bees will work by their temper.

In Switzerland grape leaves are used for tea, but, it is said, they require more sweetening than genuine tea. Why not use honey and combine health, pleasure and home industry?

We learn, with pleasure, through Mr. Atwater's letter in this issue, that Mr. Rauchfuss, of Colorado, after several years' experience considers the Caucasians the best, all things considered. We are glad, therefore, to place one large chalk-mark to the credit of the Caucasian.

Mr. J. E. Johnson, in this issue takes a side-swipe at the editor for having been guilty of misunderstanding a former statement. Mr. Johnson, it will be noted also, is one of the very few who regard the Honey Producers' League as the Moses to lead the apiarian fraternity of America out of the wilderness. It ought to be gratifying to League promoters to note that the organization has some admirers among the actual producers of honey. They are not numerous, we opine.

The associate editor desires to publicly express his thanks to Editor Hutchinson of the Review for finally laying emphasis on the need of learning the "Whys" of bee life. We labored long and faithfully with him on this subject and are pleased to note his conversion. The Bee-Keeper has endeavored to impress upon its readers the advantage of searching for and learning why bees do as they do. When laws of their life are once understood, keeping them will become as play, the troubles of swarming will vanish, they will enter the supers at our command and in a word we will be boss. Find the "why," then methods of manipulation will create themselves.

GREATER CARE NEEDED IN MAILING QUEENS.

Unless persons mailing queens take more pains with the cages they use there is a possibility of the queens being barred from the mails. Of cages shown to us this year some were all sticky and dauby at the candy end, others had sharp points of wire projecting along the edges and some had sharp edges or corners of the perforated zinc turned out so they would cut the unwary postal clerk. The exposed candy at the end is a mistake and a menace, and the little strip of pasteboard over it only helps to spread the stickiness when the candy becomes soft from absorbed moisture. These conditions partly result from the efforts of some persons to economize in the amount of postage, candy, etc., by using small and scrimpy cages. It is false economy and in the end may cost the queen dealers dearly. Observe the postal regulations more carefully or Uncle Samuel will deprive you of the privileges of the mails.

A LAME DEFENSE.

Defenders of a weak or defenseless cause often find their only hope lies in trying to divert the people from the real issue, and this seems to be the effort of Editor Putnam of the Rural in his comments on recent articles in the Bee-Keeper on matters pertaining to the League. He calls the articles assaults on Mr. York, and attempts to poison the public mind against the League. As a matter of fact, the article he refers to was contributed by a member of the association, and said to be a statement of facts, putting them in juxtaposition that the busy reader might readily compare and judge them for himself. Mr. Putnam says, "The only question should be 'Who will lead?'" The honey producers lead, and, according to the evidence presented, a few editors and supply men butted in and are striving to do the leading. Possibly Mr. Putnam was too busy to read carefully. We think it must be that, for heretofore he has appeared to be of and for the plain honey producers.

Do bees sting us because they hate us, or because it amuses them?

THOSE MAY FOLLOW WHO WILL.

The Rural Bee-Keeper says: "No need, Bro. Hill, to poison the minds of your readers against the National or against the Honey Producers League, at a time when some organization is needed. The only question should be 'who will lead?' Let every one follow."

Pray, banish your fears, dear Rural. The welfare of the fraternity is probably quite as earnestly "at heart" at the home of the American Bee-Keeper as in the sanctum of the Rural. This paper, however, is the organ of no organization nor clique. The interests of the industry in general is the specific point that engages the eye of the American Bee-Keeper; and while every effort that bids fair to enhance these interests may confidently rely upon our support, we owe no allegiance, nor attach any special importance to any independent organization or "inner wheel," simply because an apiarian cognomen adorns its "shingle?" Oh, no!

If Brother Putnam deems it prudent to advise his readers to "every one follow" all and every bunch that constitutes organized beedom, we have only to say that we believe he unintentionally commits an error. Our advice is: First investigate thoroughly, and if the proposition proves meritorious, embrace it with a degree of zeal worthy of its beneficent promise. If, however, the investigation releases odors suggestive of decay, decline it. We hardly think it would be wrong, either, by the way, to mention to a brother producer who, perchance, may also contemplate affiliating himself with what he considers a "good thing," that you had caught a suspicious whiff. It might prove a kindness to him and a benefit to the fraternity of actual producers.

Other substances than gold sometimes glitter. Other "bugs" than bees are known to hum. All "Honey Producers'" societies do not necessarily have honey producers as "leaders." It may be wisdom to "follow" them, though, just because they are "leaders" of a "honey producers'" this, that or the other; but we don't believe it.

FREE CAUCASIANS.

The following circular has been reeived from Dr. E. F. Phillips, acting in charge of Apiculture during the bsence of Prof. Benton:

DISTRIBUTION OF QUEEN BEES.

It has been customary in the past or the Bureau of Entomology to disribute a limited number of queen bees of the more rare varieties to bee-keepers. This distribution is not inended to be general, since that would be impossible; and, to prevent misunderstanding, the following method, o be used in all future distributions, s announced:

It is desired that some of the less common varieties which have proven so good may become more widely known among the bee-keepers of the country, to take the place, in as far as possible, of the common black bees and of certain strains of Italian bees which seem to have deteriorated.

Carniolan bees are very prolific and are, at the same time, gentle, and there are records to show that as honey producers they are excellent. The recently introduced Caucasian bees, which have attracted considerable attention, are the most gentle bees known at the present time, and records of honey production now coming in indicate that they are excellent. The Cyprian race, which has been criticised on account of its temper, ranks second to none in honey production.

Of these races, the Carniolans are sold in this country to some extent, and the Cyprians in less numbers; so far no queen breeder has offered Caucasian queens for sale, and there is, without doubt, an opportunity for a wide sale of these queens, as evidenced by the requests which come to the Bureau of Entomology.

The Bureau can do more toward the wider introduction of these races by inducing reliable men to take up rearing of pure-bred queens than by a more general distribution. It is not the purpose merely to give away queens, and the future distributions will be limited as follows:

To any experienced queen-breeder who will guarantee to rear queens and mate them purely in considerable numbers for general sale, the Bureau will send, as far as the supply will allow, one high-grade breeding queen, purely mated and carefully tested. In addition, several queens whose matings are not known will be sent for drone production, since drones are not affected by the mating; all queens, however, will be from good stock, the number to depend on the supply at hand. The breeder making the request must give evidence of his ability to rear good queens, must agree to offer at least 200 pure-bred queens a year for sale to the general public, and must not ask for them an exorbitant price. It is the opinion of the Department that 20 per cent more than the current price for Italian queens would be fair. It will also be expected that in future years the breeders will do their utmost toward the improvement in honey production, at the same time maintaining the purity of the races. The Bureau will be glad to aid breeders of this class to its utmost ability, but will not aid in any way a breeder who offers for sale or sells crossed hybrids of the various races, except in the case of untested queens, and even in that case, every possible effort should be made to get pure matings.

After this distribution, all inquiries to the Bureau will be answered by giving a list of reliable breeders, including those who have received stock from the Government apiary; and the name of any breeder who knowingly sends out inferior stock will be dropped. It is not the purpose to interfere with the private business of the persons receiving queens, but these precautions are taken to protect the bee-keepers of the country.

No applications for queens under other circumstances will be considered. All applications will be considered in the order of their receipt.

Yours respectfully,
L. O. Howard,
Entomologist.

Approved:
James Wilson,
Secretary of Agriculture.

While the intentions of the Department are doubtless the best, we deem the proceedure one, the wisdom of which may well be questioned. The American Bee-Keeper would certainly decline the proffered gift of a Caucasian queen, and would pray that none of its neighbors might accept; at least, until the race has given a better account of itself than now stands to its credit in this country. When a Caucasian queen, for breeding purposes or otherwise, is desired, a breeder would hardly forego the wish to possess her simply because of the usual purchase price.

The Caucasian race has now been before the American public for more than twenty years. Some, at least, of those who tried them, found them to compare favorably with the stingless bees of the tropics in the matter of complete worthlessness.

It is twenty years since the writer had the honor to be introduced to a colony of these meekest of the meek in all beedom. They were as gentle and docile as a sick lamb. Their docility was exceeded only by their laziness; but nothing could exceed in completeness the perfection of this latter trait. While supers tiered up from three to six and even eight upon colonies of Italians black and Carnio-Italian crosses, not a section of surplus could the gentle Caucasian be induced to store. One of the assistants in the apiary used to say that they went to the basswood forests at meal-time to eat, but returned with empty honey sacs; and the condition of the colony throughout the season would justify such a belief.

It is obviously true that the foregoing instance is insufficient to condemn the race. We find inferior strains cropping out in any and all races; but, in view of the fact that not a single bee-keeper, in all these years, in all America, who makes the production of honey any considerable business, has adopted the Caucasian as his choice, and in view of the fact that very adverse reports have been made in several instances, does the reader deem it the part of wisdom at this time for our Government to "seed" the country with Caucasian blood? Even the Cyprians have their admirers among honey producers (and heaven knows they are bad enough) but let us hear from one or two Caucasian admirers, with certified reports of their honey crops. We're listening. Hark!

Editor Root has for some time had a Caucasian in his bonnet. They are well adapted to the requirements o a first-class bonnet bee, because the will not sting. In a recent number o Gleanings, Bro. Root refers to thi new hobby again, as follows:

"I have just asked our Mr. Me Pritchard, who has charge of our bees how our imported Caucasians ar doing, and how their temper is, compared with that of other bees. H says they are unquestionably th gentlest bees he ever handled. H has mauled the hives around in al sorts of shapes in cool weather, an the bees paid no attention to it. H can hardly make them show fight."

Now, if people kept bees merely fo the pleasure of mauling them around stroking their fur and caressing them. like a poodle dog, all this would be a incentive to put in Caucasians. But as a general rule, they do not. Mos bee-keepers are like Dr. Miller—the prefer some honey even if a fev stings come with it. However, continuing to comment upon his interview with Mr. Pritchard, Mr. Roo says:

"But they are unsatisfactory in on or two other respects. They do no know enough, he says, to take syru out of a common feeder in the hive when they are short of stores. H has been trying to make them pu the syrup into combs. But it is th old case of leading the horse to wate that wouldn't drink."

If Mr. Root's Caucasians are simila to those with which we have had t do, this trait should cause no surprise Imagine a Caucasian going afoot upstairs to get something to eat out o a feeder. Hardly. Try thinning i just to the consistency of nectar, Bro Root, warm it nicely and use a camel' hair brush individually. Dip the brus into the warm food and politely offe it. We think they could thus be induced to take sufficient to sustain life at least.

Mr Root concludes his commen thus: "Another thing, if the weathe is a little cool they will not venture out of the hive until an hour or an hour and a half after the other bees are out in the air. This may or may not be a desirable trait in chilly weather. At all events, Mr. Pritchard thinks the bees are too good-natured to be good for anything, and that this particular colony will need a lot of nursing to bring it through winter. On the other hand, the climate of the Caucasus regions is about the same as that of Italy or Florida. If the bees are able to survive in Russia they might not live through in our climate. Even if these bees are not quite equal to Italians for honey-gathering the fact that they are so very gentle will make them in demand with a large number."

We think Mr. Pritchard is wise, and that he is a prophet; but we do not agree with Bro. Root that the mere trait of gentleness is sufficient to establish the Caucasian in favor with even a few.

Dr. Phillips' ambition to serve the interests of the fraternity is commendable indeed; and the mere fact that The American Bee-Keeper is unable to muster a grain of faith in the project, does not necessarily signify that his efforts will be productive of no good. Perhaps even a mistake is preferable to absolute inactivity upon the part of the Department of Agriculture.

The Companion as a Christmas Gift.

Can you think of a gift more certain to be acceptable than a year's subscription to the Youth's Companion? Is there any one, young or old, who, having once had the paper in his hands and looked through it, did not wish to possess it for his very own? It is a gift which, far from losing its freshness as Christmas recedes into the past, grows more delightful, more necessary to one's enjoyment week by week.

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HONEY AND BEESWAX MARKET.

Buffalo, Sept. 5.—We quote fancy white new comb honey at 14-15c; No. 2, 11-12c; No. 3, 8-10c. Old stock very dull and slow sale at low prices. Demand for new crop improving. Batterson & Co.

Kansas City, Mo., Sept. 7.—The market on white comb honey, fancy, is very strong at present, the demand exceeding the supply; 24 section cases selling at $3.00. Extracted, fancy white, selling at 6½c and Amber and other grades at 5c up. Beeswax 28c per pound. We look for the market to continue firm. C. C. Clemons & Co.

Cincinnati, Oct. 6.—We are selling Northern comb honey at from 14-16c per lb. by the case. The demand for Extracted honey is about equal to the demand, which is good. We continue to sell amber in barrels at 5 1-4-6c. White Clover, 6½-7½c. We pay 30c per lb. for beeswax delivered here.
The Fred W. Muth Company.

Denver, Oct. 2.—We quote our market today as follows: No. 1 White Comb, per case of 24 sections, $3.00; Light Amber and No. 2, per case, $2.75; Extracted honey, 6¾-7½c; Beeswax, 24c for clean yellow.
Colorado Honey Producers' Association.

Chicago, Nov. 17.—There has been a steady trade in honey to the small dealers who usually lay in a little stock at this time of the year. Prices are practically unchanged. The fancy grades of white comb brings 14 to 15 cents, that which is a little off 1 to 2 cents less, amber grades 10 to 12 cents, dark and damaged lots 7 to 10 cents, extracted white 6 to 7½ cents, amber 6 to 7 cents. Beeswax steady at 30 cents.
R. A. Burnett & Co.

Boston, Oct. 5.—Owing to the warm weather prevailing, the demand for honey has not come up toprevious years. This, together with the very large quantity being carried over from last year, both by jobbers and retailers, tends to keep the price and demand down.

Fancy white comb, 15c; No. 1, 14c; No. 2, 12c; Extracted honey, from 5½-7c.
Blake, Scott & Lee Co.

THE GERMAN HONEY MARKET.

The following quotations of the Hamburg honey market were sent us by Mr. Wm. Hesse, a German subscriber. They are very interesting, not only because of the fact that "California" gets "top," but for the reason that "Cuba" brings one-tenth of a cent more than "Havana." Another interesting question arises in this connection: From what is this "Domingo" goods gathered, that it should so nearly approximate "California?" However, here is the list:

Hamburg, Germany, Oct. 5, 1905.

Extracted.—California, 5½-6 per ℔; Chile, 4.4; Cuba, 3.9; Domingo, 5.1; Havana, 3.8; Mexican, 4.6.

Beeswax.—Brazil, 30.2-32.2; Angola, 29.1-30.2; Chile, 30; Cuba, 30.2; Domingo, 29.1-29.7; Madagascar, 28.6-29.7; Marocco, 29.7; West India, 29.1-29.7.

Vegetable Wax.—Japan, 12.1; Caraula, 30.1-42.2.

INDEX TO VOLUME XV, 1905.

SUBJECTS:

A Base Reflection 37
A B C of Bee Culture, The New......... 21
Abolish the Feeding Practice 188
About Sweet Clover 172
Accepted 170
Adaptability Required 140
Advance of The American Bee-Keeper..102
Advantage of Drawn Combs 164
A Handy Cage 64
A "Good Scheme" 115
Agrees With Mr. Miller 220
A Handy Device 90
A Lame Defense.........................254
Bee-Keepers' Institute, A.............. 20
A Large Gill of Refreshment 74
Alfalfa Growing 54
American Apiculture 25, 50
An Autumn Prayer 217
An Explanation 228
And Each With a Virgin 121
A New Bee Book 126
An Old Straw Skep 18
Another Postal Card from Pat 232
Another Visit from the Deacon's Ghost.. 14
Another Secret Out 163
Apiculture for Women 23
Apiarian Patents, New.................. 34
Artificial Ripening 72
A Visit to Dr. Blanton 136
August in the Apiary 152
A New Hive and Its Management 165
A Point of Law 186
A Review 149
A Standard of Strength 165
A Veteran Apiarist 175
A Venerable Student 204
A Wanton Waste 171
Beautiful Magazine 168
Bee Calendar, A Beautiful 36
Bee Pranks 39
Bee Books, Ancient and Modern 52
Bee-Keeping not a Precarious Business.. 65
Bee-Keepers Hold Meeting 83
Bee-Keeping 126
Bee Culture in Japan 201
Bee Experts Hunt Queens for Prizes.....206
Bees Capture a Car 171
Bees Hatching Eggs 211
Bees in the Home 184
Bees' Mysterious Action 118
Bees Removing Eggs 225
Beginner's Questions 79
Behind the Times 120
Best Kind of Hive Tool 236
Bottling Extracted Honey 177
Brushed Swarms 252
Building Up Weak Colonies 117
Burlap for the Smoker 63
Cabbage Palmetto, The 191
Call for Nominations 186
California Honey Producers 182
Camping Out 162
Candied Honey 168
Can Hardly Wait 18
Capt. Robinson's Cuban Apiary.......... 38
Caucasians 232
Chaff from the "Chillisquaque Apiaries," 63
Chicago Convention, The 214
Climate and Honey, The 109
Clarifying Extracted Honey 100
Cleaning Beeswax 226
Cleaning Cappings 136
Cleaning Combs 185
Cloistering Hive 166
Color of Honey Affected by Conditions... 64
Color of Wax 212
Comb Honey 1
Comb Honey in Cuba ....
Comb Honey Rules 1
Comparative Tests of New and Old Foundation 1
Consumption of Sweets Declining 1
Convenient Colony Record, A...........1
"Cutting a Queen Bee's Wing" 1
Cutting the Bee Tree..................1
Disadvantages of Unpreparedness ....
Diseases of Bees ....
Disposing of the Honey Crop 1
Don't Discourage the Philadelphian 1
Don't Do It At All ....
Down With Sugar Feeding ....
Drones and Virgin Queens 1
Drones Are All Right 2
Dubini's Bee-Keeping 2
Dupes 1
Dysentery 185, 1
Educating Bees 1
Effect on Bees of Cold and Moisture.....
Evaporation ....
Evaporation of Nectar 1
Evidently from Ohio 1
Extracted Honey Rules 1
Explanation of Standard of Honey......2
Extracting Beeswax....................2
Extracting Unsealed Honey ....
Extractor, The Use of ....
Factions of the Craft ....
Failure in Idaho 2
Favors American Hives 1
Feeding Bees ....
Feeding Larvae 1
Feeding Out of Doors 1
Feeding Sugar Syrup 2
Feeding Syrup in January ....
Final Ripening ....
Fixing the Price of Honey 1
Flat Foolishness 2
Folly of Tinkering with Bees 138, 2
Foolish Virgins, The 2
Forced Swarms ....
Foreign Competition ....
For Local Shipping 1
Formic Acid in Honey 1
For Tariff Revision 1
Foul Brood in New Zealand 2
Foul Brood, Treatment of ....
Foul Brood Preventives 2
Foundation in Section Honey 1
Friction of the Factions 1
Free Caucasians 2
From An Australian Reader 1
From Frying-Pan to Fire 1
From the Farm Papers ....
General Advice 1
General Notes 1
German Convention, A 2
Getting Ready to Move In..............1
"Going-to-Bees," The ....
Gobbler and Bees, The ....
Good Schedule 21
Gov. Folk's Veto 1
Grading Honey 1
Granulation, To Prevent 1
Grading Rules 1
Greater Care Needed in Mailing Queens ... 2
Handling Bees and the Honey Crop with Profit 6
Handling Robbers 13
Handy Way to Hold a Queen While Clipping 17
Hardscrabble Interview 3
Hewitt-Benton Discussion, The 5
Have They Different Odors? 14
Heddon's Own Style 21

ershiser Combined Hive Stand and Bottom-Board 43
igh Pressure Stimulation 251
istorical Scraps 40
ive Improvements 142
ive-Opening Tool, A 158
ive Stand, A New Combined 159
iving Swarms 144
offman Frames 2
omemade Hive Paint 121
oney Crop Short 193
oney Markets of Germany, The 53
oney Market Unusually Dull 82
oney As An Ointment 101
oney Market Day 210
oney Producers' League, The 91, 104
oney Producers' League 196
oney Thieves 224
oney vs. Lumber 184
oney Shoe-Blacking 212
oneysuckles 129
oney, The Standard of Excellence in 104
oney Vinegar, Making 100
ow to Run a Bee Paper 63
ow to Clip Queens 88
ow to Successfully Run An Out-Apiary for Comb Honey 113
'How to Keep Bees" 147
ustling California 167
dentifying Honey 252
ll Effect of Their Own Vine and Fig Tree 164
n the "B" Class 238
nversion 130
Invention of the Extractor 120
In Search of Foreign Races of Bees 130
Introducing Queens 210
Irish Wit 80
Irish-English Controversy 216
Italian Bee, The 66
Jefferson Co., N. Y., B.-K. Convention 61
Just Fills the Gap 101
Just "Catching On" 142
Labels for Extracted Honey 235
Large and Small Hives 184
Larval Queen, The 46, 72
Late Breeding 162
Law of the Bees, The 216
Laying Workers 162
Loss of Queens in Parent Colony 116
Long Memories 166
Long Lived 166
Looking for the Ideal Bee 208
Looking Backward 232
"May Bee" 21
May Be So 143
May Be So in Germany 142
Missouri, The Season in 18
Missing Essentials 124
Missouri Foul Brood Bill 124
Mississippi Notes 135
Mixes His Bees 212
Miller's Wax Extractor 244
Moore's Queen-Rearing Apiary 221
More About "Bee Stealers" 34
Mr. Miller's Greeting 102
Must Have Been Cyprians 171
Must Be a Little One 101
Naphtaline and Foul Brood 184
National Convention 141
National Election, The 76
Natural Law 215
Newspaper Version, A 40
New Zealand Notes 209
Night Work 71
Nobility and Bees 121
None Too Soon 120
Not All the Time 195
Not Foul Brood 64
Notes by Swarthmore 89
National Convention Postponed 250
Notes from Germany, 16, 35, 55, 77, 120, 142, 161, 182, 210, 227
  Siam 17
  Switzerland, 17, 35, 56, 142, 210, 230
  Austria, 17, 35, 55, 142, 161, 228
  Turkey 17
  Madagascar 36
  France, 56, 78, 162, 184, 210, 228
  Asia Minor 56
  German Southwest Africa 56
  Dahomey 78
  Belgium 100, 121, 144, 162
  Bulgaria 121
  Italy 121, 211
  Holland 121
  Bohemia 121
  Spain 142, 110
  German East Africa 143
  Siberia 162
  Sumatra 184
  Egypt 110
  England 211

Objects to Flour 120
Odors 125
Odor Theory Again 188
Odor Theory Out of Order 132
Old Enough to Be Good 210
Old Bees for Nurses 252
On the Wing 71
Orange Blossom Honey 125
Packing Comb Honey for Shipment in Car Lots 110
Patents 222
Pennsylvania State Convention 36
Perforated Zinc is Better 121
Pliny on Alfalfa 236
Politics in the Apiary 180
Political Economy of Bee Culture, The 193
Popularizing Honey 205
Prefers Side Storing 163
Prefers the Switzer 142
Prejudice 59
Preparedness 171
Preserve Your Bee-Keepers 190
Probably Correct 229
Producing Beeswax 148
Prof. Benton Off for Dorsata 124
Prof. Sladen's Book 149
Profitable Marketing 155
Profitable Season in Ireland 182
Progressiveness 112
Program of the National Convention 212
Progressive Box-Hive Bee-Keepers 228
Propolis from Start to Finish 95
Protecting Combs 162
Public Library 210
Punic Bees 10, 33, 59
Queens' Capacity 251
Queen Cells 229
Queens Die in the Mails 120
Queenless Colonies 136
Queen-Rearing Obstacles 3
Questions for Dr. Blanton 249
Receives Government Appointment 21
Removing Propolis from the Hands 177
Removing Propolis 188
Retail Honey Tank 210
Review of Volume XIV. ....
Ripening of Honey, The 70
Root Wouldn't Indorse It 143
Rule that Works Two Ways 120
Save the Natural Cells 210
Says It's a Mystery 142
Science in Apiculture 104
Sectional Hives 136
Seeks American Capital 143
Separating Swarms 212
Shallow vs. Deep Frames 96
Shouldn't Object to Profit 210

Scraps of History 186
Sibbald's Controlled Swarming 168
Simmins' Book, A Review of 42
Simmins' Method, The 211
Sixty Years Among the Bees, 29, 65, 85, 108, 133, 222
So He Says 101
Sophism 168
Sophora Japonica 124
Sounds All Right 165
Spring Inspection 212
Sunk Ten Thousand Dollars in Bees 60
Straw Skeps 33
Stahlman's Report for 1904 4
Starved or Frozen 144
Startling If True 181
Steadily We Grow 125
Sugar Feeding 174
Smoker Without Smoke 185
Sunshine in Winter 211
Starters for Swarms 252
Status of Bee-keeping in Massachusetts 245
Study the Bee 214
Subduing Bees 121
"Sugar Habit," The 240
Swarming 5
Swarthmore Demonstration 12
Swarming and Wintering Results 27
Take It With a Grain of Salt 229
Take Your Choice 162
Test for Honey Dew 101
Testing for Glucose 251
Testing New Strains and Races 101
Testing Wax 185
Testing Wax 251
Tiering Up 154
Times are Changing 39
The Bees 31
The Call o' the Fields 117
The Caucasus Mountains 243
The Duplex System 143
The Distribution of Honey 190
The Farm 107
The Limit in Bee Culture for Profit 24
The Passing Years 239
The Real and the Unreal 151
The Wonderful Queen 163
The Wood Robin 173
Theory vs. Practice 202
They Don't Fit 163
They Indicate the Flow 230
They Know Us Now 60
This Is Funny 80
Those May Follow Who Will 254
Tobacco for Queen Introduction 168
To Educate the Public 169
"Too Thin" 121
Top Entrances 228, 230
To Prevent Swarming 185
To Test Nectar and Pollen-Yielding Plants 112
Tried Again and Found Wanting 142
Truth Will Prevail 125
Two Men 172
Uniting Colonies 121
Unjust Trait of Human Nature, A 127
Uses a Roller to Elevate the Honey 165
Uses for Beeswax 163
Very Much Awake 168
Voice of the Sluggard, The 226
Wants Information 82
Warm Shower Needed 121
Watch It Next Year 229
Watering Bees 144
Wax Adulteration Suspected 178
Wax Adulteration 189
Wax Adulteration 246
We Be Brethren 170
We Haven't Tried It 164
"We Got 'Em Beat" 80
Western Bee Journal Sold 190
What Do You Think? 20
Where Should the Sections Be? 248
Wholesale Absconding 164
Who Was First? 123
Whose Be They? 162
Who Was Right? 188
Why Not Try the Pigs? 229
Will Woman Be Appointed? 83
Winter Conditions 83
Winter Consumption 211
Wintering 185
Wintering 229
Wintering Bees in Swarthmore Mating Boxes 158
Wintering Results 38
Wintering Without Combs 164
Wiring Brood Frames 38
Work in Bee Culture 75
Work in the Out Yard 223
Worse Than a Flea 101
Worth Remembering 193
Yates County, N. Y., B.-K. Convention Report 74
Young vs. Old Bees 185

INDEX TO ILLUSTRATIONS.

Apiary of J. P. Moore 221
Capt. Robinson's Cuban Apiary 29
Convenient Colony Record 179
Dr. Blanton at Home 136
Hardscrabble's Ghost 15
Hershiser's Hive Stand 44, 45
Honey Formula 81
Hunting Queens 206, 207
Japanese Bee Appliances 202
J. G. S. Small 209
John Hewitt 58
Loading Car With Comb Honey 111
Manner of Loading Car 110
May Bee 21
Mr. Davis in the Apiary 67
Mr. Howe's Tiering Up Plan 154, 155
Mr. Greiner Driving Down Bees 224
Mr. Stritmatter's Apiary 91
Mr. Awayagai 201
Mr. Greiner's Buckwheat Comb 115
New Combined Hive Stand 159
O. L. Hershiser 23
Reinforced With Brood 114
Stahlman's Aplary 3
Stritmatter's Erecting Form 90
The Late Geo. W. Brodbeck 73
"The Queen" 131

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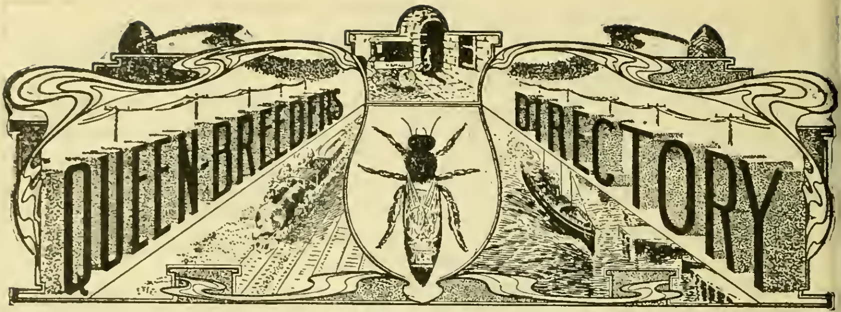

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National Beekeepers' Convention

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